

DOS 3.30

# User's Guide

by IBM Corp. and Microsoft, Inc.

**Programming Family**

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## Programming Family



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## About This Book

This book gives you step – by – step procedures that teach you how to use the IBM Personal Computer **Disk Operating System (DOS)** to do some everyday tasks with your IBM Personal Computer. Instructions for the following tasks are provided in this book:

- Installing DOS for the first time
- Starting DOS for everyday use
- Preparing a fixed disk to be used with DOS
- Organizing files on a fixed disk
- Getting a diskette ready to be used
- Copying a diskette or file
- Comparing two diskettes or files
- Finding out what is on a diskette or a fixed disk
- Looking at a file
- Changing a file name
- Removing a file from a diskette or a fixed disk

# The DOS Library

The IBM Personal Computer Disk Operating System (DOS) Version 3.30 library contains the following three books:

- **DOS User's Guide**—a step-by-step guide to the more frequently used DOS commands. The *DOS User's Guide* helps you start using DOS and shows you how to do some simple tasks. The book also contains a list of common messages that you may get while using DOS.
- **DOS Reference**—a complete reference about DOS. The *DOS Reference* gives you information about DOS commands and other functions. A complete list of messages is included in this book.
- **DOS Technical Reference**—a complete reference about programming considerations. The *DOS Technical Reference* gives you information about DOS that you may need if you are programming or developing applications. The book also describes the technical advantages and special programming characteristics of DOS.

The *DOS User's Guide* and the *DOS Reference* are both included when you purchase DOS. The *DOS Technical Reference* must be purchased separately.

## Required Reading

Before using DOS, you should read the *Guide to Operations* (GTO) for your computer.

## DOS Memory Requirements

Although DOS Version 3.30 contains additional functions and features, the base configuration is the same size as the previous version. For a *diskette-only system*, a minimum memory size of 96K is recommended. For a *fixed disk system*, a minimum memory size of 128K bytes is recommended. If you install the code page switching function, additional memory is required. For more information about the code page switching function, see the section entitled "Installing DOS the First Time" in Chapter 4 of this book.

## Required Reading

Before using D-2, you should read the books in Operations (OCT) for your computer.

## DOS Memory Requirements

Although DOS Version 2.00 contains additional functions and features, the disk configuration is the same size as the previous version. For a disk-based system, a minimum memory size of 64K is recommended. If a disk-based system, a minimum memory size of 128K is recommended. If you install the code page switching feature, additional memory is required. For more information about the code page switching function, see the section entitled "Installing D-2 the First Time" in Chapter 4 of this book.

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# What Comes in Your DOS Package?

DOS Version 3.30 comes with two books:

- *DOS User's Guide*
- *DOS Reference*

DOS comes on:

- Two 5.25 inch, 360KB diskettes. The diskette labeled **"DOS Start-Up Diskette"** contains the DOS programs and commands needed to install and start the system. The diskette labeled **"DOS Operating Diskette"** contains the files needed for normal everyday use. Some commands are duplicated on both diskettes, because they are needed to start the system and to perform everyday tasks.
- One 3.5 inch, 720KB diskette. This diskette, labeled **"DOS Start-Up/Operating Diskette,"** contains all DOS programs, commands, and files needed for both installation and normal everyday use.

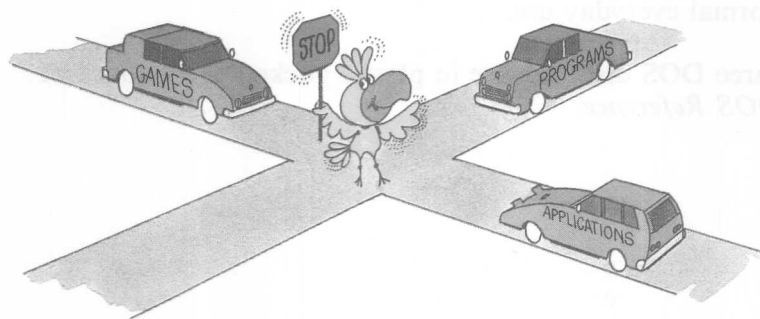
All three DOS diskettes are in plastic pockets in the back of the *DOS Reference*.

# What Is DOS ?

The IBM Personal Computer Disk Operating System (DOS) controls the movement of information on the computer. You can think of DOS as the policeman who directs traffic at a busy intersection. In much the same way, DOS controls the way the computer uses programs, games, and applications.

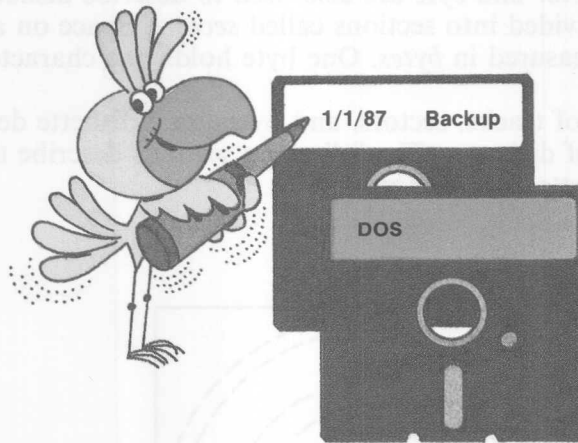
DOS makes it easy for you to use applications and create and manage files on your computer. DOS also lets you use devices such as printers, diskette drives, and fixed disk drives with the computer.

This book will help you learn more about how to use DOS to organize and maintain the information you place on diskettes and fixed disks.



# Using Your DOS Diskettes

When you install DOS for the *first* time, you must select the keyboard layout and the country code that you want to use with your system. The SELECT procedure in Chapter 4 allows you to make these two selections and also makes a *copy* of the *original DOS Start-Up Diskette* or the *original DOS Start-Up/Operating Diskette*. After you finish reading Chapters 1, 2, and 3, follow the SELECT procedure in Chapter 4 to install DOS for the first time.



In Chapter 4 you will make exact copies of your *original* diskettes for normal, everyday use. Label and date the copies using a felt-tip pen. Be sure to store the *original* DOS diskettes in a safe place.



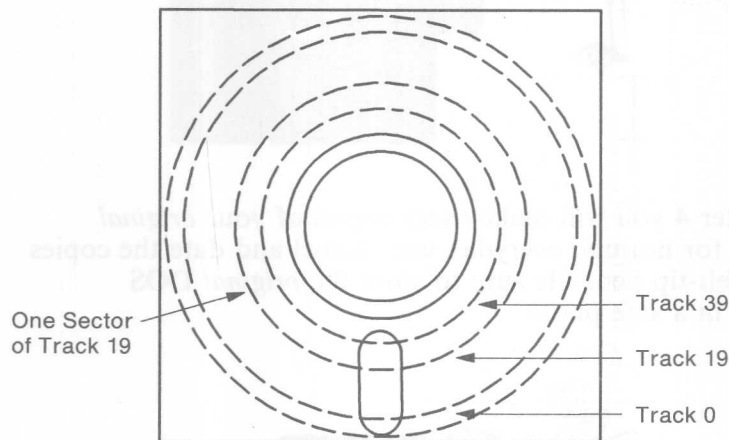
# About Diskette Drives and Diskettes

## Tracks, Bytes, and Sectors

Information is written on diskettes along concentric circles called *tracks*. The read/write head of the diskette drive moves back and forth from one track to another as the diskette spins. As the read/write head moves, it finds data to read or locates a place on the diskette to write data.

The terms *sector* and *byte* are also used to describe diskettes. Tracks are divided into sections called *sectors*. Space on a diskette is measured in *bytes*. One byte holds one character.

The number of tracks, sectors, and bytes on a diskette depends on the type of diskette. The following sections describe the types of diskettes and diskette drives.



## Types of Diskette Drives

The following table shows the types of diskette drives your IBM Personal Computer can have.

Size (inches)	Description	Capacity (bytes)
5.25	Single-sided	160KB/180KB
5.25	Double-sided	320KB/360KB
5.25	High-capacity	1.2MB
3.5	Double-sided	720KB
3.5	Double-sided	1.44MB

## Types of Diskettes

The following table shows the types of diskettes used to read and write information.

Size (inches)	Description	Capacity (bytes)
5.25	Single-sided, double-density	160KB/180KB
5.25	Double-sided, double-density	320KB/360KB
5.25	High-capacity, double-density	1.2MB
3.5	Double-sided	720KB
3.5	Double-sided	1.44MB

A single-sided, double-density diskette (160/180KB) contains 40 tracks, 8 or 9 sectors per track, and 512 bytes per sector.

A double-sided, double-density diskette (320/360KB) contains 40 tracks per side, 8 or 9 sectors per track, and 512 bytes per sector.

A high-capacity, double-density diskette (1.2MB) is a double-sided diskette that contains 80 tracks per side, 15 sectors per track, and 512 bytes per sector.

A double-sided diskette (720KB) contains 80 tracks per side, 9 sectors per track, and 512 bytes per sector.

A double-sided diskette (1.44MB) contains 80 tracks per side, 18 sectors per track, and 512 bytes per sector.

## Types of Diskettes

The following table lists the types of diskettes used in PCs and their capacities.

Capacity	Tracks	Sectors per track
1.44MB	80	18
720KB	80	9
360KB	40	9
180KB	40	9
90KB	40	9
45KB	40	9



## Diskette and Drive Compatibility

Some combinations for reading and writing between different diskette and drive types are not allowed. The following sections describe which diskette and drive combinations *are* allowed.

### 160/180KB Single-Sided Drives (5.25 inch)

You can read and write to:

- 160/180KB single-sided, double-density diskettes

### 320/360KB Double-Sided Drives (5.25 inch)

You can read and write to:

- 160/180KB single-sided, double-density diskettes
- 320/360KB double-sided, double-density diskettes

### 1.2MB High-Capacity Drives (5.25 inch)

You can read and write to:

- 160/180KB single-sided, double-density diskettes\*
- 320/360KB double-sided, double-density diskettes\*
- 1.2MB high-capacity, double-density diskettes

\* **WARNING:** If you write on either of these diskette types using a 1.2MB high-capacity drive, you may not be able to read the diskettes in a 160/180KB drive or a 320/360KB drive.

### **720KB Double-Sided Drives (3.5 inch)**

You can read and write to:

- 720KB double-sided diskettes

### **1.44MB Double-Sided Drives (3.5 inch)**

You can read and write to:

- 720KB double-sided diskettes
- 1.44MB double-sided diskettes

**\* Important:** If you have more than one type of diskette drive, you need to consider diskette and drive compatibility when you use DOS commands that read and write to diskettes. For example, when using the DISKCOPY or DISKCOMP commands, the diskette drives must be identical.

## **Formatting Your Diskettes**

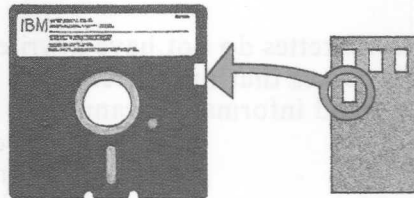
You must format each new or blank diskette before it can be used by DOS. Do not use the FORMAT command every time you want to put information on a diskette—only the first time you use it.

For more information about formatting diskettes, refer to “Getting a Diskette Ready for Use” in Chapter 5.

## Write-Protected Diskettes

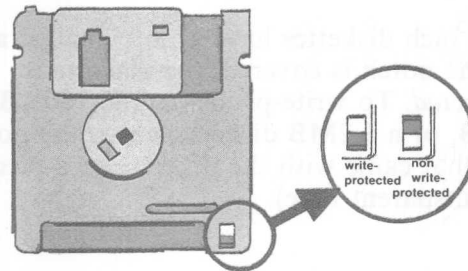
It is possible to format a diskette or write information on a diskette unintentionally. Important data could be lost in certain situations. For this reason, diskettes are *write-protected*. You can *read* data from write-protected diskettes, but you cannot *write* data on them. Diskettes are write-protected in two ways:

- Some 5.25 inch diskettes have a notch called a *write-protect notch*. If the notch is covered, the diskette is *write-protected*. To write-protect a 160/180KB, a 320/360KB, or a 1.2MB diskette, cover the notch with a silver tab that came with the diskette or a piece of tape (do not use transparent tape).



- Some 5.25 inch diskettes do not have a notch. This means that the diskettes are already write-protected and information cannot be written on them.

- On the reverse side of a 3.5 inch 720KB diskette or a 3.5 inch 1.44MB diskette, in the lower right corner, there is a write-protect window. When you slide the plastic tab so that the window is open, the diskette is write-protected. When the window is closed, data can be written on the diskette.



- Some 3.5 inch diskettes do not have a write-protect window. This means that the diskettes are already write-protected and information cannot be written on them.

# About DOS Devices

## DOS Device Names

Some devices that you can use with your computer are displays, diskette drives, fixed disk drives, and printers. DOS refers to these devices by a *DOS device name*. You need to know the DOS device name for any devices you have attached to your computer so you can tell DOS how you want to use a device.

The following table lists some devices and their DOS device name. For a complete list of DOS device names, refer to "DOS Device Names" in the *DOS Reference*.

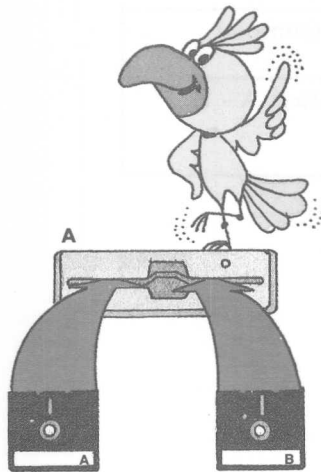
Device	DOS Device Name
Printer	LPT1 or PRN
Display or console	CON (console)
Drives (diskette or fixed disk)	The letters A - Z

## What System Do You Have ?

Your computer can have diskette drives or fixed disk drives or a combination of both. DOS refers to diskette and fixed disk drives by the letters A - Z. DOS assigns drive letters to all the diskette drives attached to your computer (beginning with the letter A). Then DOS assigns drive letters to any fixed disks attached to your computer.

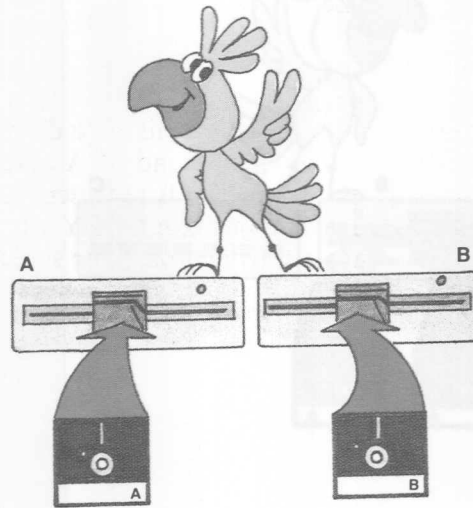
### One Diskette Drive

For example, if your computer has one diskette drive, DOS refers to it as both drive **A** and **B**. Instead of A and B representing physical drives, the A and B represent diskettes. When you're using a DOS command like COPY with one diskette drive, DOS displays a message on your screen telling you which diskette to insert. You must switch diskettes each time DOS tells you to exchange them.



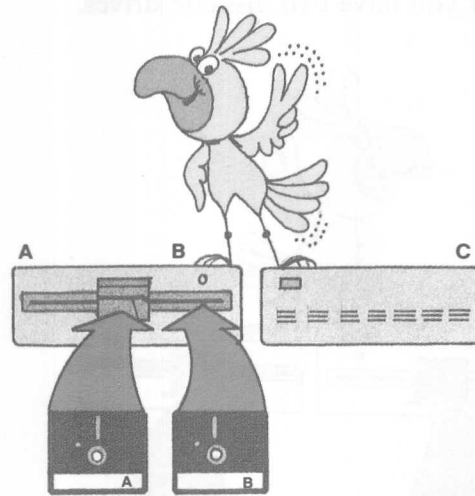
## Two Diskette Drives

If your computer has two diskette drives, the first diskette drive is referred to as drive **A** and the second diskette drive is referred to as drive **B**. You can have a diskette in both drive **A** and **B** at the same time. DOS does not have to tell you to switch diskettes if you have two diskette drives.



## One Diskette Drive and a Fixed Disk Drive

If your computer has one diskette drive and one fixed disk drive, the diskette drive is referred to as both drive **A** and **B**. The fixed disk drive is called drive **C**.





## About Fixed Disk Drives

To use DOS with a fixed disk drive, you must prepare it for DOS. Continue reading the first three chapters of this book. Then, if you have a fixed disk, prepare it for DOS by following the procedure in Chapter 4 entitled, "SELECT Procedure for a Fixed Disk System (Installing DOS)."

**Important:** If your fixed disk has been prepared with a previous version of DOS, see "Replacing a Previous Version of DOS" in Chapter 3 of the *DOS Reference*.

## About Messages

You may get messages on your screen when using DOS commands. If you get a message and need help, refer to Appendix A, "Messages," in this book or the *DOS Reference* for the explanation of the message and the action you should take.



If the first part of the message contains **NET###** (### is a 3-digit number), refer to the *PC Network Program User's Guide* or the *IBM PC Local Area Network Program User's Guide* for the message explanation and the action you should take.

## About Fixed Disk Drivers

To use DOS with a fixed disk, you must prepare it for DOS. Contents regarding the fixed disk chapters of this book. Then, if you have a fixed disk, you must prepare it for DOS by following the procedure in Chapter 1, "SELECT Product for a Fixed Disk (Fixed Disking DOS)".

Important: If your fixed disk has been prepared with a previous version of DOS, you must use a previous Version of DOS in Chapter 1 of the DOS Manual.

## About Messages



You may get messages on your screen when using DOS commands. If you get a message and don't know what to do, refer to Appendix A, "Messages", in the book or the DOS Manual for the explanation of the message and the action you should take.

If the first part of the message contains "NET" (this is a 3-digit number), refer to the "NET" section in the DOS Manual or the IBM PC or compatible system's manual. Guide for the network operation and the action you should take.

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## Chapter 2. DOS Functions and DOS Editing Keys

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# DOS Functions

Your computer keyboard has keys to do some particular tasks or functions. Because of the differences between keyboard layouts, this section describes what the keys do. The following shows what keys you press for most keyboards:

For each function in the table, in the Personal Computer column, the keys mentioned must be pressed simultaneously. For instance, for a System Reset, press and hold the Ctrl key while pressing Alt and Del.

Function	Personal Computer	PCjr
Break	Ctrl – Break	Fn then Break
Pause Screen	Ctrl – Num Lock	Fn then Pause
Print Screen	Shift – PrtSc	Fn then PrtSc
Printer Echo	Ctrl – PrtSc	Fn then Echo
System Reset	Ctrl – Alt – Del	Ctrl – Alt – Del

## Entering a Command (Enter)

Use when you have finished typing an entire command. It tells DOS to interpret the command or line you typed.

## Canceling a Command (Break)

Stops a command from finishing its job normally. This is sometimes called *terminating* a program.

## Correcting a Typing Mistake (Backspace)

Moves the cursor back one space to correct a typing mistake *before* you press Enter.

## Stopping the Screen (Pause Screen)

Causes the screen to pause when information is appearing on the screen too fast to read.

## Printing the Screen (Print Screen)

Prints information currently on the screen. The printer must be on before you press the Print Screen function keys. The whole screen is printed. What is printed is called a *hard copy* or a *printout*.

## Printing What You Type (Printer Echo)

Prints one line at a time as it appears on the screen. Each time you press the Enter key or the computer displays a line, the line is printed, or *echoed*, on the printer. To stop echoing to the printer, press the Printer Echo keys again.

## Restarting DOS (System Reset)

Restarts DOS. This is sometimes referred to as *loading* or *starting* DOS. Refer to "Starting DOS" for more information.

## DOS Editing Keys

When you type a line and press Enter, DOS puts a copy of the line in an *input buffer* (a temporary storage place). The line is put in the buffer so you can change it and use the line again. This saves you time because you do not have to type the whole line over.

The DOS editing keys are used to edit the line that is put in the input buffer. The following chart describes each of the DOS editing keys.

DOS Editing Key	Description
Ins	Allows you to insert characters within a line.
Del	Deletes one character in the input buffer. The character in the buffer is not displayed and the cursor does not move.
Esc	Cancels the line currently being displayed. The buffer remains unchanged.
F1 or -->	Displays one character from the buffer each time it is pressed.
F2	Displays all characters up to a specified character.
F3	Displays all characters in the buffer.
F4	Deletes all characters up to but not including the specified character. F4 is the opposite of F2.
F5	Accepts the line you edited as the current buffer line.

## Using the DOS Editing Keys

Follow the exercise below to help clarify the purpose of the DOS editing keys:

1. **Type:**

ABCDEFGF

2. **Press Enter.**

The input buffer now contains the line ABCDEFG.

**Note:** For this exercise ignore the message, “Bad command or file name.”

3. **Press F1**, and the A is displayed.

4. **Press F1** again, and the B is displayed.

Each time you press **F1**, another character is displayed.

5. **Press F1** five more times, and the following is displayed:

ABCDEFGF

6. **Press Enter.**

7. Now press **F2**, and then type the letter E. The following is displayed:

ABCD

Notice that all characters up to—but not including—the E are displayed.

8. **Press Enter.**

9. **Press F3**, and the following is displayed:

ABCD



## Chapter 3. DOS Files

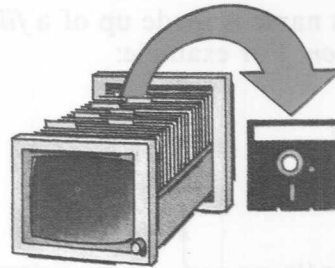
What Is a File? .....	3-3
How to Name Files .....	3-3
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## Chapter 3. DOS Files

3-3	What Is a File?
3-3	How to Name a File
3-3	File Names
3-3	File Extensions
3-6	File Specifications

## What Is a File?

A *file* consists of related information (data) you store on a diskette or a fixed disk.

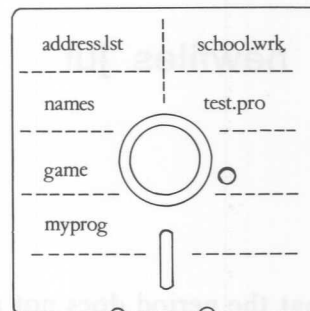


You can compare a file on a diskette or a fixed disk to a file in a file cabinet. One diskette or fixed disk is like a file cabinet drawer. Each file on disk is like a file folder in the file cabinet drawer.

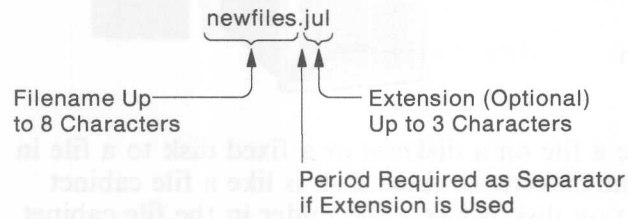
Each file has a name, just like the name on the tab of a file folder. When you want DOS to find a file, you give DOS the *filename*. Filenames are used so that DOS can find the specific information that you need.

## How to Name Files

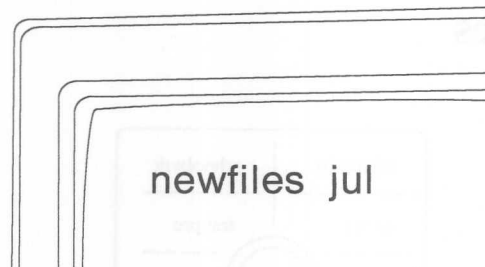
You can store any combination of files on a diskette or a fixed disk. Each file must have a unique or different name, but you can have the same name on different diskettes or within different directories on a fixed disk.



A file's name is made up of a *filename* and an optional *extension*. For example:



If you used the **DIR** command, a file named **newfiles.jul** would appear on your display screen like this:



Notice that the period does not appear on the screen, but you must use the period when you enter a filename and extension.

## Filespecifications

## Filenames

In DOS, *filenames* are from 1 to 8 characters long. When you type a filename, DOS checks for *invalid* characters. The following characters are invalid in filenames:

" / \ [ ] : ;  
| < > + = . ,

## Filename Extensions

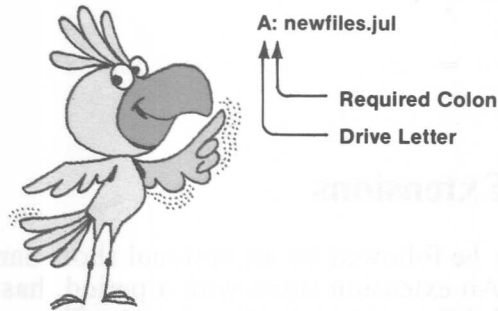
A filename can be followed by an optional short name called an *extension*. An extension starts with a period, has 1, 2, or 3 characters, and follows immediately after the filename. The same characters that are invalid for filenames are also invalid for filename extensions.

**Important:** If a filename is followed by an extension, you must use both parts when telling DOS about that file.

A good name for a file will help you remember what kind of information is in the file, and perhaps whether it's a file that contains a program or data. For example, ADDRLIST.BAS is a good name for a BASIC program file that prints an address list.

## File Specifications

To locate a file, in addition to the filename and extension, DOS must know which drive to search. The three things that DOS must know—the drive letter, the filename, and the extension—are called a *file specification*. For example:



The drive letter and the colon are called the *drive specifier*. The *drive letter* tells DOS where the file is located. You always need to type the colon (:) after the drive letter as a separator.

The filename and extension immediately follow the drive specifier. Do not put any spaces between the three parts.

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## Chapter 4. Installing and Starting DOS

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## About This Chapter

**Important:** If you already have a version of DOS on your fixed disk, and you want to replace it with DOS 3.30, do *not* use the SELECT command. See “Replacing a Previous Version of DOS” in Chapter 3 of the *DOS Reference*.

If you are new to DOS, be sure to read this entire chapter and perform the SELECT procedure. In this chapter you will:

- Learn how to insert diskettes.
- Choose the country and keyboard codes that you want to use with your system.
- Use the SELECT command to:
  - Tell DOS your keyboard routine and date and time format.
  - Make copies of your DOS diskettes (if you have a one- or two-drive system).
  - Install DOS on your fixed disk for the first time (if you have a fixed disk system).
- Learn how to start DOS for everyday use and enter the date and time.
- Learn how to specify the default drive.

If you are familiar with DOS, all that you need to do in this chapter is follow the SELECT procedure for your type of system—diskette-only (one- or two-drive) or fixed disk.

## Starting (Loading) DOS

Starting or “loading” DOS means that internal commands are read from the DOS diskette and placed in the computer’s memory.

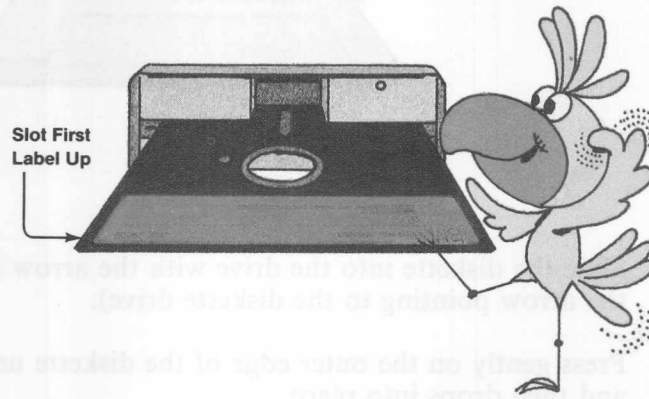
DOS tells you it is ready when it asks for the current date and time. After that, DOS is ready for you to enter a command—that is, to tell DOS what you want it to do.

To install DOS for the *first* time, follow the SELECT procedure described in this chapter. After you have completed the SELECT procedure, go to “Starting DOS for Everyday Use” later in this chapter.

## How to Insert Diskettes

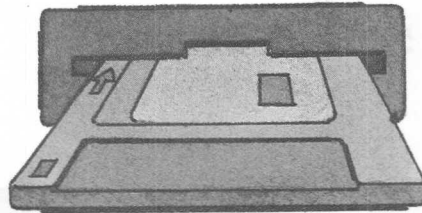
Before you start DOS, you need to know how to insert diskettes in diskette drives. Follow the procedure that pertains to your particular type of system.

### Inserting 5.25 Inch Diskettes



1. Remove the diskette from the paper envelope.
2. Open the diskette drive door.
3. **Gently** slide the diskette into the drive with the label side up and toward you.
4. Make sure the diskette is all the way in, and close the drive door.

## Inserting 3.5 Inch Diskettes



1. Slide the diskette into the drive with the arrow side up (and the arrow pointing to the diskette drive).
2. Press gently on the outer edge of the diskette until it clicks and then drops into place.

To remove the diskette, press the eject button on the lower right of the diskette drive.

## Installing DOS the First Time

To install DOS for the first time on a new system, use one of the SELECT procedures in this chapter— for a one-drive, a two-drive, or a fixed disk system. But *first*, choose the values for the keyboard and country codes from the table at the end of this chapter.

The *keyboard code* tells DOS which keyboard layout you want to use. For example, to use a U.S. keyboard, specify the US keyboard code.

The *country code* tells DOS the date and time format. It also tells DOS the currency symbol and the decimal separator for the country you choose. For example, if you choose the US country code:

- The date format is MM/DD/YY (month/day/year).
- The time format is HH:MM:SS (hours:minutes:seconds).
- The currency symbol is \$ (dollars).
- The decimal separator is . (period).

“Code page switching” is a new feature of DOS 3.30 that changes the characters displayed on a screen or printed on a device. Because the code pages supplied with DOS 3.30 provide additional national language support for more countries than previous versions of DOS, we recommend that new DOS users install the new country code pages. See Chapter 9, “Code Page Switching,” in the *DOS Reference*.

After using the SELECT procedure on a diskette-only system, you will have copies of your DOS diskettes that are set up for the keyboard code and country code you chose.

After using the SELECT procedure on a fixed disk system, you will have a copy of DOS on your fixed disk with the keyboard and country codes that you chose. From then on, you can start DOS from your fixed disk.

## What's Needed to Use SELECT?

If you have a computer with 5.25 inch diskette drives, you need:

- The *original* **DOS Start-Up Diskette**, the *original* **DOS Operating Diskette** AND
- Two new blank 5.25 inch diskettes. Label them “**DOS Start-Up Diskette**” and “**DOS Operating Diskette**.”

### OR

If you have a computer with 3.5 inch diskette drives, you need:

- The *original* **DOS Start-Up/Operating Diskette** AND
- One new blank 3.5 inch diskette. Label it “**DOS Start-Up/Operating Diskette**.”

### Important:

- If you are using a high-capacity drive, you *must* use a high-capacity diskette when performing the SELECT procedure.
- The blank diskettes should *not* be 160/180KB single-sided, double-density diskettes.

## SELECT Procedure for a One – Drive System

Before you perform the SELECT procedure, choose your country and keyboard codes from the table at the end of this chapter. You will need both codes for step 3 below.

1. Insert the *original* **DOS Start-Up Diskette** OR the *original* **DOS Start-Up/Operating Diskette** in drive A.
2. Press Ctrl-Alt-Del to start DOS, but ignore the date and time prompts by pressing **Enter** twice.
3. At the DOS prompt, type the SELECT command using the following format:

```
select xxx yy
```

where **xxx** is the country code and **yy** is the keyboard code you chose from the table.

4. Press **Enter**. Then this message appears:

```
SELECT is used to install DOS the first  
time.  SELECT erases everything on the  
specified target and then installs DOS.  
Do you want to continue (Y/N)? Y
```

5. If you want to continue with SELECT, press **Enter**.

You see the message:

```
Insert new diskette for drive B:  
and strike ENTER when ready
```

6. Remove the *original* DOS diskette from drive A and insert the diskette you labeled **DOS Start-Up Diskette** or **DOS Start-Up/Operating Diskette**.



7. Press **Enter**.

DOS begins formatting the target diskette. Head and cylinder numbers appear on the screen—they keep changing as the formatting procedure progresses. When the diskette is formatted, this message appears:

```
Format Complete  
System transferred
```

Disk space statistics also appear and then the message:

```
Format another (Y/N)?
```

8. Type **N**.

9. Press **Enter**.

This message appears:

```
Insert DOS diskette in drive A:  
Strike any key when ready
```

10. Insert the *original* DOS diskette in drive A.

11. Strike any key.

The drive in-use light comes on. When it goes off, you see the message:

```
Insert diskette for drive B:  
Strike any key when ready
```

12. Remove the *original* DOS diskette from drive A and insert the diskette you labeled **DOS Start-Up Diskette** or **DOS Start-Up/Operating Diskette**.

13. Strike any key.

The drive in-use light comes on as DOS does a checking procedure. Then you see the message:

```
Insert diskette for drive A:  
Strike any key when ready
```

14. Remove the **DOS Start-Up Diskette** or the **DOS Start-Up/Operating Diskette** from drive A and insert the *original* DOS diskette.
15. Strike any key.

You see the message:

Reading source file(s)

DOS is reading the files from the *original* DOS diskette into the computer's memory. When the drive in-use light goes off, this message appears:

Insert diskette for drive B:  
Strike any key when ready

16. Remove the *original* DOS diskette from drive A and insert the **DOS Start-Up Diskette** or the **DOS Start-Up/Operating Diskette** so that the files in the computer's memory can be copied to the target diskette.
17. Strike any key.

The names of the files appear on the screen as they are copied. When all files are copied, the A > is displayed.

**Note:** Depending on the amount of memory in your computer, you may have to switch diskettes again. Follow the prompts on the screen until all the files are copied to the **DOS Start-Up Diskette** and you see the A > .

If you are using the 3.5 inch **DOS Start-Up/Operating Diskette**, all of the files are copied, and the SELECT procedure is complete. Go to step 24.

18. Now you should copy the files on the *original DOS Operating Diskette* to the diskette you labeled **DOS Operating Diskette**. Continue with step 19.

19. Insert the *original DOS Operating Diskette* in drive A.

20. At the A > , type:

```
diskcopy a: b:
```

21. Press **Enter**.

Then this message appears:

```
Insert SOURCE diskette in drive A  
Strike any key when ready ...
```

22. Press any key, and the computer will begin copying files into memory.

Then the following message is displayed:

```
Insert TARGET diskette in drive A  
Strike any key when ready ...
```

23. Insert the diskette you labeled **DOS Operating Diskette** in drive A, and press any key.

**Note:** Depending on the amount of memory in your computer, you may have to switch diskettes again. Follow the prompts on the screen until all the files are copied to the **DOS Operating Diskette** and you see the A > .

24. When the A > returns, the SELECT procedure is complete, and you have successfully installed DOS. Store the original DOS diskettes in a safe place, and use the copies for everyday tasks.

**Note:** If you plan to use the code page switching function, you should now refer to Chapter 9, "Code Page Switching," in the *DOS Reference*.

If you are new to DOS, go to “Starting DOS for Everyday Use” later in this chapter.

## SELECT Procedure for a Two – Drive System

Before you perform the SELECT procedure, choose your country and keyboard codes from the table at the end of this chapter. You will need both codes for step 3 below.

1. Insert the **DOS Start-Up Diskette** OR the **DOS Start-Up/Operating Diskette** in drive A.
2. Press Ctrl-Alt-Del to start DOS, but ignore the date and time prompts by pressing **Enter** twice.
3. At the DOS prompt, type the SELECT command using the following format:

```
select xxx yy
```

where **xxx** is the country code and **yy** is the keyboard code you chose from the table.

4. Press **Enter**. Then this message appears:

```
SELECT is used to install DOS the first  
time.  SELECT erases everything on the  
specified target and then installs DOS.  
Do you want to continue (Y/N)? Y
```

5. If you want to continue with SELECT, press **Enter**.

You see the message:

```
Insert new diskette for drive B:  
and strike ENTER when ready
```

6. Insert the target diskette— the one you labeled **DOS Start-Up Diskette** or **DOS Start-Up/Operating Diskette**— in drive B.

7. Press **Enter**.

DOS begins formatting the target diskette. Head and cylinder numbers appear on the screen—they keep changing as the formatting procedure progresses. When the diskette is formatted, this message appears:

```
Format Complete  
System transferred
```

Disk space statistics also appear and then the message:

```
Format another (Y/N)?
```

8. Type **N**.

9. Press **Enter**.

When you see the following message, DOS reads all the files on your *original* DOS diskette.

```
Reading source file(s) .
```

The names of the files appear on the screen as they are copied to the target diskette. When all files have been copied, the **A >** is displayed.

**Note:** If you are using the 3.5 inch **DOS Start-Up/Operating Diskette**, all of the files are now copied, and the **SELECT** procedure is complete. Go to step 15.

10. Now you should copy the files on the **DOS Operating Diskette** to the diskette you labeled **DOS Operating Diskette**. Continue with step 11.
11. Insert the *original* **DOS Operating Diskette** in drive A and the diskette you labeled **DOS Operating Diskette** in drive B.

12. At the A>, type:

```
diskcopy a: b:
```

13. Press **Enter**.

Then this message appears:

```
Insert source diskette in drive A
Insert target diskette in drive B
```

14. Press **Enter**.

15. When the A> returns, the SELECT procedure is complete, and you have successfully installed DOS. Store the original DOS diskettes in a safe place, and use the copies for everyday tasks.

**Note:** If you plan to use the code page switching function, you should now refer to Chapter 9, "Code Page Switching," in the *DOS Reference*.

If you are new to DOS, go to "Starting DOS for Everyday Use" later in this chapter.

## SELECT Procedure for a Fixed Disk System (Installing DOS)

**Important:** If you already have a previous version of DOS on your fixed disk, do *not* follow the instructions in this section. Instead, see Chapter 3 of the *DOS Reference*, "Preparing Your Fixed Disk." Follow the instructions in the section entitled, "Replacing a Previous Version of DOS."

Before beginning to use your fixed disk, you must create a DOS partition and install DOS in that partition. The three steps required to prepare your fixed disk are:

1. Use the FDISK command to create a DOS partition.
2. Use the SELECT command to load the keyboard and country codes for your system. This procedure also formats your fixed disk and copies the files:
  - from the *original* **DOS Start-Up Diskette** to your fixed disk OR
  - from the *original* **DOS Start-Up/Operating Diskette** to your fixed disk.
3. Use the COPY command to copy the files from the *original* **DOS Operating Diskette** to the fixed disk.

These three steps will be explained in detail on the following pages.

**Note:** You may experience difficulty in typing certain characters. These characters may include the colon (:), the backslash (\), and the letter Y. See Appendix B, "Special Keyboard Considerations," to resolve these difficulties.



## Using FDISK to Create a DOS Partition

You cannot use your fixed disk until it has been prepared using the FDISK program. If you try to use your fixed disk before it has been prepared, the following message appears:

Invalid drive specification

**Note:** You can use FDISK to do other fixed disk tasks (such as deleting a DOS partition, changing the active partition, or displaying partition information). If you're interested in all the things that FDISK can do, see Chapter 3, "Preparing Your Fixed Disk," of the *DOS Reference*.

Follow this procedure to prepare your fixed disk for DOS installation:

1. With the *original DOS Start-Up Diskette* OR the *original DOS Start-Up/Operating Diskette* in drive A, at the A >, type:

```
fdisk
```

2. Press **Enter**.

The program's main menu appears with four or five choices (depending on how many fixed disks your computer has).

IBM Personal Computer  
Fixed Disk Setup Program Version 3.30  
(C)Copyright IBM Corp. 1983,1987

FDISK Options

Current Fixed Disk Drive: 1

Choose one of the following:

1. Create DOS Partition
2. Change Active Partition
3. Delete DOS Partition
4. Display Partition Information
5. Select Next Fixed Disk Drive

Enter choice: [1]

Press ESC to return to DOS

3. Select choice 1, **Create DOS Partition**, by pressing **Enter**.

The following screen appears:

Create DOS Partition

Current Fixed Disk Drive: 1

1. Create primary DOS Partition
2. Create extended DOS Partition

Enter choice: [1]

Press ESC to return to FDISK Options

4. Select **1** by pressing **Enter**.

You see the following screen:

Create Primary DOS Partition

Current Fixed Disk Drive: 1

Do you wish to use the maximum size  
for a DOS partition and make the DOS  
partition active (Y/N) .....? [Y]

Press ESC to return to FDISK Options

5. Answer Yes by pressing **Enter**.

You see the following message:

```
System will now restart  
Insert DOS diskette in drive A:  
Press any key when ready . . .
```

The *original* **DOS Start-Up Diskette** OR  
the *original* **DOS Start-Up/Operating Diskette**  
should already be in drive A.

6. Press any key.
7. Enter the date and time.

You have just created a DOS partition and restarted DOS so that it recognizes your fixed disk. Now you must use the **SELECT** command to tell DOS your keyboard and country codes, format your DOS partition, and copy the files from either the *original* **DOS Start-Up Diskette** and the *original* **DOS Operating Diskette** OR from the *original* **DOS Start-Up/Operating Diskette** to your fixed disk.

## Using SELECT

**WARNING:** Do *not* use SELECT if you have information on your disk. During the SELECT procedure, your fixed disk is formatted, and all information will be lost.

Before you perform the SELECT procedure, choose your country and keyboard codes from the table at the end of this chapter. You will need both codes for step 1 below.

1. At the A>, type the SELECT command using the following format:

```
select c: xxx yy
```

where **xxx** is the country code and **yy** is the keyboard code you chose from the table.

2. Press **Enter**. Then this message appears:

```
SELECT is used to install DOS the first  
time.  SELECT erases everything on the  
specified target and then installs DOS.  
Do you want to continue (Y/N)? Y
```

3. If there is information on your fixed disk, do not continue. Type **N** to end the SELECT procedure and see the section entitled "Replacing a Previous Version of DOS" in Chapter 3 of the *DOS Reference*.
4. If you want to continue with SELECT (install DOS for the first time), press **Enter**.
5. Before the formatting procedure begins, the following message appears:

```
WARNING, ALL DATA ON NON-REMOVABLE DISK  
DRIVE C: WILL BE LOST!  
Proceed with Format (Y/N)?
```

6. To proceed with formatting, type **Y** and press **Enter**.

As the fixed disk is being formatted, a message appears showing you the head and cylinder numbers. They keep changing as the formatting procedure progresses.

When formatting is complete, you see the message:

```
Format Complete  
System transferred
```

```
Volume label (11 characters, ENTER for none)?
```

7. Enter a name (volume label) for your fixed disk. It can be up to 11 characters.
8. Press **Enter**.

Disk space statistics appear on the screen.

As the files from the *original DOS Start-Up Diskette* or the *original DOS Start-Up/Operating Diskette* are being read into the computer's memory, you see this message:

```
Reading source file(s)...
```

The names of the files appear on the screen as they are copied to your fixed disk. When the files have been copied, the **A>** is displayed.

**Note:** If you copied the *original* 3.5 inch **DOS Start-Up/Operating Diskette** to the fixed disk, then all of the files have been copied, and the **SELECT** procedure is complete. Go to step **13**.

9. Now you should copy the files on the *original DOS Operating Diskette* to the fixed disk. Continue with step **10**.

10. Insert the *original* **DOS Operating Diskette** in drive A.

11. At the A>, type:

```
copy a:*. * c:
```

12. Press **Enter**.

The names of the files appear on the screen as they are copied to the fixed disk.

13. When the DOS prompt reappears, the **SELECT** procedure is complete, and you have successfully installed DOS. Store the original DOS diskettes in a safe place. Now you can start DOS from your fixed disk.

**Note:** If you plan to use the code page switching function, you should now refer to Chapter 9, "Code Page Switching," in the *DOS Reference*.

If you are new to DOS, go to "Starting DOS for Everyday Use" on the next page.

# Starting DOS for Everyday Use

Choose one of the following three procedures to start DOS from the diskette in drive A or from a fixed disk.

## Starting DOS from Diskette

### If Your Computer Is Off

1. Insert the **DOS Start-Up/Operating Diskette** in drive A, OR insert the **DOS Start-Up Diskette** in drive A and close the drive door.
2. Switch on the printer (if you have one), the video monitor or TV, and then the computer.

The drive in-use light comes on while DOS is being read.

3. Wait a moment while the system checks itself. The length of the pause depends on the amount of memory in your computer—the more memory, the longer the pause.

### If Your Computer Is On

1. Insert the **DOS Start-Up/Operating Diskette** in drive A, OR insert the **DOS Start-Up Diskette** in drive A and close the drive door.
2. Do a system reset (press and hold Ctrl-Alt-Del).

The drive in-use light comes on while DOS is being read.

3. Wait a moment while the system checks itself. The length of the pause depends on the amount of memory in your computer—the more memory, the longer the pause.



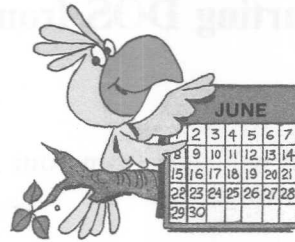
## Starting DOS from a Fixed Disk

DOS will start from your fixed disk when you do either of the following:

- Switch on your computer.
- Do a system reset (press and hold Ctrl-Alt-Del).

**Note:** The diskette drive door for drive A must be left *open* when you do either of the two preceding steps.

## Date and Time



### Telling DOS the Date

When DOS is loaded and ready, you see one of the following messages:

Current date is Tue 1-01-1980  
Enter new date(mm-dd-yy): \_

or

Enter new date(dd-mm-yy): \_

or

Enter new date(yy-mm-dd): \_

The cursor shows where the first number you type will appear. Do not type the day of the week. DOS displays the day of the week for your information.

If the current date is correct, press **Enter**. If incorrect, type the new date and press **Enter**. Use the number keys to type the date.

*mm*      Month. Type one or two numbers between 1 and 12 for the month.

*dd*      Day of the week. Type one or two numbers between 1 and 31 for the day.

*yy*      Year. Type two numbers between 80 and 99 or four numbers between 1980 and 1999 for the year.

Separate the three parts of the date (month, day, and year) with a hyphen (-), a slash (/), or a period (.).

For example, suppose the current date is January 31, 1987.  
You can type:

1-31-87

or

1/31/87

or

1.31.1987

## Telling DOS the Time

After you enter the date, DOS displays a message similar to this:

Current time is 0:01:05.58  
Enter new time: \_

The format is:

HOURS:MINUTES:SECONDS.HUNDREDTHS OF SECONDS

If the time displayed is correct, just press **Enter**. Otherwise, use the number keys at the top of the keyboard to reset the time.

1. Type one or two numbers between 0 and 23 for the hours.
2. Type a colon (:).

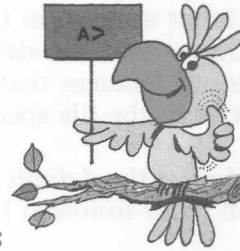
**Note:** A hyphen (-) or a slash (/) does not work.

3. Type one or two numbers between 0 and 59 for the minutes. If the hours and minutes are sufficient, go to step 8. If you wish to enter the seconds and hundredths of seconds proceed with step 4.
4. Type a colon (:).
5. Type one or two numbers between 0 and 59 for the seconds.
6. Type a period (.) or a comma (,) depending on the decimal separator that is displayed on the screen.
7. Type one or two numbers between 0 and 99 for the hundredths of seconds.
8. Press **Enter**.



## When DOS Is Ready

After you have entered the date and time, DOS displays this:



The IBM Personal Computer DOS  
Version 3.30 (C)Copyright IBM Corp 1981, 1987  
(C)Copyright Microsoft Corp 1981, 1986

A>\_

## DOS Prompt

The A> is the DOS *prompt*. If you start DOS from a fixed disk, C> is the prompt. It tells you that DOS is ready and it is your turn to enter information, that is, to tell DOS what to do by typing a command.

## Specifying the Default Drive

The **A** in the prompt **A >** designates the *default drive*. Whatever letter appears in the DOS prompt is the default drive. DOS searches the default disk drive to find any commands or filenames that you type, unless you specify another drive in the file specification.

You can change the default drive by typing the new drive designation letter followed by a colon. For example:

```
A>      (original prompt)
A>B:    (new drive designation)
Press Enter.
B>      (new prompt)
```

Now **B** is the drive DOS searches to find any filenames that you type, unless you specify a drive in the file specification.

Remember, if you do not specify a drive when you type a command or filename, DOS automatically searches the default drive. In a one-drive system, the default drive may be different from the last drive used.

## Country and Keyboard Codes

Choose the country and keyboard codes for the SELECT command from the following table:

Country	Country Code	Keyboard Code
Arabic	785	
Australia	061	US
Belgium	032	BE
Canada (Eng.)	001	US
Canada (Fr.)	002	CF
Denmark	045	DK
Finland	358	SU
France	033	FR
Germany	049	GR
Hebrew	972	
Italy	039	IT
Latin America	003	LA
Netherlands	031	NL
Norway	047	NO
Portugal	351	PO
Spain	034	SP
Sweden	046	SV
Switzerland (Fr.)	041	SF
Switzerland (Ger.)	041	SG
United Kingdom	044	UK
United States	001	US

# Country and Keyboard Codes

Choose the country and keyboard code for the SELECT command from the following table.

Country	Keyboard Code	Keyboard Code
Algeria	001	001
Argentina	002	002
Australia	003	003
Belgium	004	004
Canada (Eng)	005	005
Canada (Fr)	006	006
Denmark	007	007
Finland	008	008
France	009	009
Germany	010	010
Greece	011	011
Italy	012	012
Japan	013	013
Latin America	014	014
Netherlands	015	015
Norway	016	016
Portugal	017	017
Spain	018	018
Sweden	019	019
Switzerland (F)	020	020
Switzerland (G)	021	021
United Kingdom	022	022
United States	023	023



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## Frequently Used DOS Commands

This chapter discusses some frequently used DOS commands. It also shows the steps to follow in doing tasks that use these commands. Where necessary, you will see steps for a one-diskette drive system and a two-diskette drive system. Follow the steps for the type of system you have.

You can use these DOS commands to do the following tasks:

- Getting a diskette ready to be used (FORMAT)
- Copying a diskette (DISKCOPY)
- Comparing your backup diskette (DISKCOMP)
- Copying a file (COPY)
- Comparing your backup file (COMP)
- Finding out what files are on a diskette (DIR)
- Looking at a file (TYPE)
- Changing a file's name (RENAME)
- Removing a file from a diskette (ERASE)

Read this chapter to get familiar with these commands. Refer to them when you need to do a task.

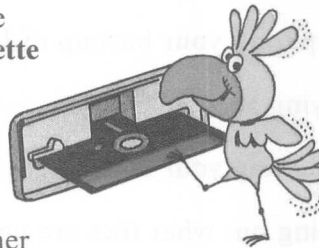
As you become more comfortable with your computer and DOS, refer to the *DOS Reference* for more information about these commands and the other DOS commands.

If you get a message on your screen and need help, refer to Appendix A, "Messages," in this book or the *DOS Reference* for more information.

## When You Need DOS in a Drive

You need to put the **DOS Start-Up Diskette** OR the **DOS Start-Up/Operating Diskette** in drive A when you first *load* or start DOS.

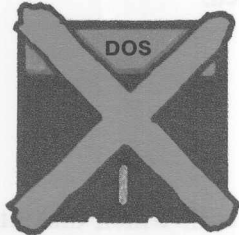

Loading DOS means that *internal* commands are read from the **COMMAND.COM** file on either the **DOS Start-Up Diskette** OR the **DOS Start-Up/Operating Diskette** and placed in the computer's memory.



These commands are called *internal* commands because they stay in the computer's memory until you switch it off or until you load DOS again. Because they are loaded in memory, you do not need the **DOS Start-Up Diskette** or the **DOS Start-Up/Operating Diskette** in drive A to use the internal commands.

The rest of the commands on the DOS diskettes are called *external* commands because they are not read into the computer's memory when you load DOS. Since the commands are not loaded in memory, you need either the **DOS Start-Up Diskette** or the **DOS Start-Up/Operating Diskette** in drive A or drive B to use the external commands.

The following shows the internal and external commands that are covered in this book:

Internal Commands	External Commands
<p>You won't need the DOS Start-Up Diskette or the DOS Start-Up/Operating Diskette for these commands if DOS is already loaded.</p> 	<p>You need the DOS Operating Diskette or the DOS Start-Up/Operating Diskette to do these commands.</p> 
<p>DIR COPY ERASE RENAME TYPE</p>	<p>FORMAT DISKCOPY COMP DISKCOMP</p>

**Remember:** After loading DOS, you do *not* need the **DOS Start-Up Diskette** or the **DOS Start-Up/Operating Diskette** in drive A to use the internal commands. But you *do* need either the **DOS Operating Diskette** or the **DOS Start-Up/Operating Diskette** to use external commands. Refer to “DOS Commands” in Chapter 7 of the *DOS Reference* for a complete list of internal and external commands.

## Referring to Diskettes and Drives

It's easy to remember which diskette to insert in a drive if you think:

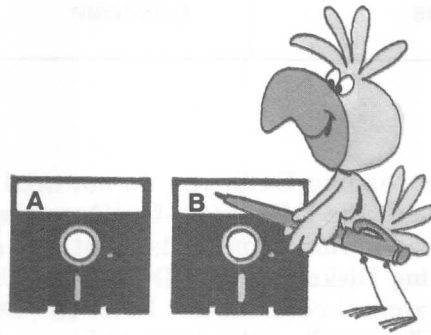
- **Drive A (or diskette A) is called:**

Source  
Original  
Master  
First

- **Drive B (or diskette B) is also called:**

Target  
Backup  
New or Blank  
Second

Until you become more comfortable with which diskette to insert, you can mark an A for source and a B for target on the diskette label. Remember to use a felt-tip pen when labeling a diskette.



# Giving DOS a Command

To give DOS a command:

1. Wait until you see the DOS prompt **A > .**
2. Type the command and any other parts the command requires (for example, a drive specifier or a file specification).

You can type commands in uppercase or lowercase letters (or a combination). For example:

`dir A:`

Use a blank (press the spacebar) to separate the parts of the command.

3. Press **Enter** when you have finished.



# Getting a Diskette Ready for Use

Use the **FORMAT** command to prepare a diskette for use. **FORMAT** checks the diskette for bad spots, and builds a directory to hold information about the files that will eventually be written on it.



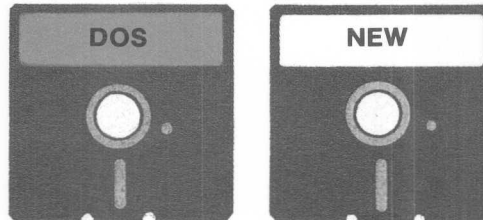
When a diskette is new, it must be formatted before you can use it.

**\* WARNING:** If you format a diskette that contains information, the information is erased.

## What's Needed?

You need:

- The **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** AND
- The diskette you want to format.





## FORMAT Procedure for a One – Drive System

1. Insert the **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** in drive A (FORMAT is an external command).
2. Make sure DOS is ready and **A >** is displayed.
3. Type:

```
format b:
```

**Note:** To format a 160/180KB single-sided, double-density diskette or a 320/360KB double-sided, double-density diskette in a high-capacity drive, type:

```
format b:/4
```

To format a 720KB double-sided diskette in a 1.44MB drive, type:

```
format b:/N:9 /T:80
```

4. Press **Enter**.

This message is displayed:

```
Insert new diskette for drive B:  
and strike ENTER when ready
```

5. Remove the **DOS Operating Diskette** or the **DOS Start-Up/Operating Diskette** from drive A.
6. Insert the diskette you want to format in drive A.
7. Press **Enter**.

The formatting procedure begins and you see head and cylinder numbers appear on the screen. These numbers keep changing as formatting progresses. When the diskette is formatted, you see the message:

Format Complete

xxxxxx bytes total disk space  
xxxxxx bytes available on disk

Format another (Y/N)?

8. Type:

- **N** to end the FORMAT command. Now the DOS prompt **A>** is displayed, and your diskette is formatted and ready to use.
- **Y** to format another diskette. Insert another diskette in drive A and repeat the FORMAT procedure starting with step 7.

## FORMAT Procedure for a Two – Drive System

1. Insert the **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** in drive A (FORMAT is an external command).
2. Make sure DOS is ready and A > is displayed.
3. Type:

format b:

**Note:** To format a 160/180KB single-sided, double-density diskette or a 320/360KB double-sided, double-density diskette in a high-capacity drive, type:

format b:/4

To format a 720KB double-sided diskette in a 1.44MB drive, type:

format b:/N:9 /T:80

4. Press **Enter**.

This message is displayed:

Insert new diskette for drive B:  
and strike ENTER when ready

5. Insert the diskette you want to format in drive B.
6. Press **Enter**.

The formatting procedure begins and head and cylinder numbers appear on the screen. These numbers keep changing as formatting progresses.

When the diskette is formatted, you see the message:

Format Complete

xxxxxxx bytes total disk space  
xxxxxxx bytes available on disk

Format another (Y/N)?

7. Type:

- **N** to end the FORMAT command. Now the DOS prompt **A >** is displayed, and your diskette is formatted and ready to use.
- **Y** to format another diskette. Insert another diskette in drive B and repeat the FORMAT procedure starting with step 6.

# Copying a Diskette

Use the DISKCOPY command to make a copy of an entire diskette on another diskette. Use the copy for your operations. Store the original in a safe place.

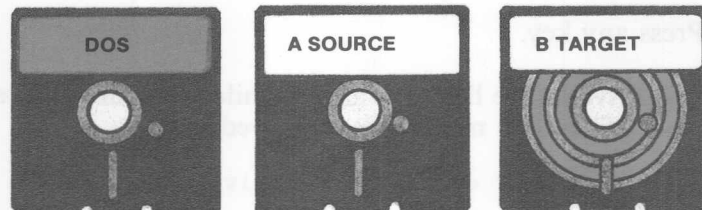


## What's Needed?

You need:

- The **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** AND
- The original diskette you want to copy—called the **source** diskette.
- The diskette that will become the copy—called the **target** diskette.

**\* WARNING:** If the target diskette contains information, the DISKCOPY command erases the information and replaces it with the information on the source diskette.



## DISKCOPY Procedure for a One – Drive System

For this procedure, you can remember which diskette to insert, if you remember “Source = Original” and “Target = Copy.”

1. Insert the **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** in drive A (DISKCOPY is an external command).

2. Make sure DOS is ready and **A >** is displayed.

3. Type:

```
diskcopy a: b:
```

4. Press **Enter**.

This message is displayed:

```
Insert SOURCE diskette in drive A:
```

```
Press any key when ready . . .
```

5. Remove the **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** from drive A.

6. Insert the **source** diskette in drive A.

7. Press any key.

The drive in-use light comes on while the source diskette is read. Then this message is displayed:

```
Insert TARGET diskette in drive A:
```

```
Press any key when ready . . .
```

8. Remove the **source** diskette from drive A.

9. Insert the **target** diskette in drive A.

10. Press any key, and the source diskette is copied to the target diskette.

**Note:** Depending on the amount of memory in your computer, you may have to switch the diskettes. You are prompted for which diskette to insert (source or target). Keep switching diskettes until this message is displayed:

Copy another diskette (Y/N)?

11. Type:

- **N** to end the DISKCOPY command. Remove the copy, and label and date it using a felt-tip pen. Store the original diskette in a safe place.

You may be asked to insert the diskette with COMMAND.COM in drive A. Insert the **DOS Start-Up Diskette** OR the **DOS Start-Up/Operating Diskette** in drive A and press any key when ready. Now the DOS prompt **A >** is displayed.

- **Y** to copy another diskette. Repeat the DISKCOPY procedure starting with step 6.

## DISKCOPY Procedure for a Two – Drive System

For this procedure, you can remember which diskette to insert, if you remember “Source = Original” and “Target = Copy.”

1. Insert the **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** in drive A (DISKCOPY is an external command).

2. Make sure DOS is ready and **A >** is displayed.

3. Type:

```
diskcopy a: b:
```

4. Press **Enter**.

This message is displayed:

```
Insert SOURCE diskette in drive A:
```

```
Insert TARGET diskette in drive B:
```

```
Press any key when ready . . .
```

5. Remove the **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** from drive A.

6. Insert the **source** diskette in drive A.

7. Insert the **target** diskette in drive B.

8. Press any key.

The drive in-use lights come on alternately as the source diskette is copied to the target diskette. Then this message is displayed:

```
Copy another diskette (Y/N)?
```



9. Type:

- **N** to end the DISKCOPY command. Now the DOS prompt **A>** is displayed, and the source diskette is copied.

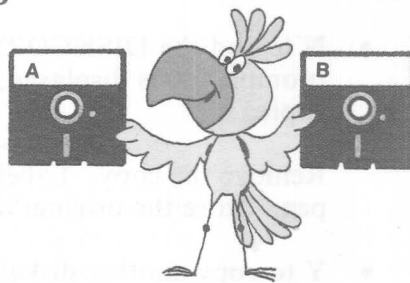
Remove the copy. Label and date it using a felt-tip pen. Store the original diskette in a safe place.

- **Y** to copy another diskette. Repeat the DISKCOPY procedure starting with step 6.



## Comparing Diskettes

Use the DISKCOMP command to compare the information on one diskette to the information on another diskette.

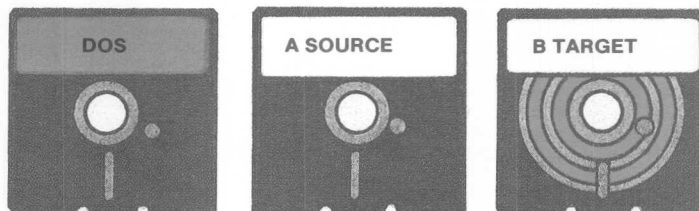


Usually you would use DISKCOMP after you use the DISKCOPY command to make sure the copied diskette is identical to the original diskette.

### What's Needed?

You need:

- The **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** AND
- The original diskette you want to compare—called the **source** diskette.
- The diskette you want to compare the original to—called the **target** diskette.



## DISKCOMP Procedure for a One – Drive System

For this procedure, the source diskette is the *first* diskette and the target diskette is the *second* diskette.

1. Insert the **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** in drive A (DISKCOMP is an external command).

2. Make sure DOS is ready and **A >** is displayed.

3. Type:

```
diskcomp a: b:
```

4. Press **Enter**.

This message is displayed:

```
Insert FIRST diskette in drive A:
```

```
Press any key when ready . . .
```

5. Remove the **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** from drive A.

6. Insert the **source** diskette in drive A.

7. Press any key.

The drive in-use light comes on while the source diskette is read. Then this message is displayed:

```
Insert SECOND diskette in drive A:
```

```
Press any key when ready . . .
```

8. Remove the **source** diskette from drive A and insert the **target** diskette.

9. Press any key.

**Note:** Depending on the amount of memory in your computer, you may have to switch the diskettes. You will be prompted for either the first or the second diskette. Keep switching diskettes until this message is displayed:

Compare OK

Compare more diskettes (Y/N)?

**Note:** If the diskettes do not compare, repeat the DISKCOPY and DISKCOMP procedures.

10. Type:

- **N** to end the DISKCOMP command. Now the DOS prompt **A >** is displayed, and the source diskette has been compared to the target diskette.
- **Y** to compare more diskettes. Repeat the DISKCOMP procedure starting with step 6.

**Note:** If you get the message:

Insert disk with \COMMAND.COM in drive A:  
and strike any key when ready

before the DOS prompt **A >** is displayed, insert the **DOS Start-Up Diskette OR the DOS Start-Up/Operating Diskette** in drive A, and press any key. Then the DOS prompt will be displayed.

## DISKCOMP Procedure for a Two – Drive System

For this procedure, the source diskette is the *first* diskette and the target diskette is the *second* diskette.

1. Insert the **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** in drive A (DISKCOMP is an external command).

2. Make sure DOS is ready and A > is displayed.

3. Type:

```
diskcomp a: b:
```

4. Press **Enter**.

This message is displayed:

```
Insert FIRST diskette in drive A:
```

```
Insert SECOND diskette in drive B:
```

```
Press any key when ready . . .
```

5. Remove the **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** from drive A.

6. Insert the **source** diskette in drive A.

7. Insert the **target** diskette in drive B.

8. Press any key.

The drive in-use lights come on alternately as the diskettes are compared. Then this message is displayed:

```
Compare OK
```

```
Compare more diskettes (Y/N)?
```

**Note:** If the diskettes do not compare, repeat the DISKCOPY and DISKCOMP procedures.

9. Type:

- **N** to end the DISKCOMP command. Now the DOS prompt **A >** is displayed, and the source diskette has been compared to the target diskette.
- **Y** to compare more diskettes. Repeat the DISKCOMP procedure starting with step 6.

**Note:** If you get the message:

Insert disk with \COMMAND.COM in drive A:  
and strike any key when ready

before the DOS prompt **A >** is displayed, insert the **DOS Start-Up Diskette OR the DOS Start-Up/Operating Diskette** in drive A, and press any key. Then the DOS prompt will be displayed.

# Copying a File

Use the COPY command when you want to copy one file instead of a whole diskette.

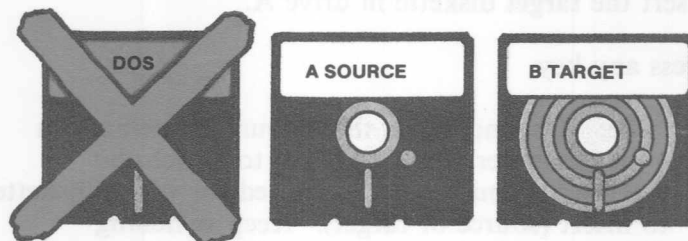


## What's Needed?

You need:

- The diskette that contains the file you want to copy—called the **source** diskette.
- The diskette that will contain the copy of the file when you are done—called the **target** diskette.

**Note:** If the **DOS Start-Up Diskette** OR the **DOS Start-Up/Operating Diskette** has already been loaded, you do not need it again for this procedure because COPY is an internal command. Also decide on the name for the copied file on the target diskette.



## COPY Procedure for a One – Drive System

It's easier to remember which diskette to insert if you think "B is for backup." Insert the target (backup) diskette when the drive B message appears.

1. Make sure DOS is ready and **A>** is displayed.
2. Insert the **source** diskette in drive A.
3. Type:

```
copy a:filename.ext b:
```

Substitute the name of the file you want to copy for *filename.ext*.

4. Press **Enter**.

This message is displayed:

```
Insert diskette for drive B:  
and strike any key when ready
```

5. Remove the **source** diskette from drive A.
6. Insert the **target** diskette in drive A.
7. Press any key.

**Note:** Depending on the amount of memory in your computer, you may have to switch the diskettes. You will be prompted for which diskette to insert (source or target). Keep switching diskettes until this message is displayed:

```
1 File(s) copied  
A>_
```

8. Remove the copied diskette. Label and date it using a felt-tip pen.



## COPY Procedure for a Two – Drive System

It's easier to remember which diskette to insert if you think "B is for backup." Insert the target (backup) diskette when the drive B message appears.

1. Make sure DOS is ready and the **A >** is displayed.
2. Insert the **source** diskette in drive A.
3. Insert the **target** diskette in drive B.
4. Type:

```
copy a:filename.ext b:
```

Substitute the name of the file you want to copy for *filename.ext*.

5. Press **Enter**.

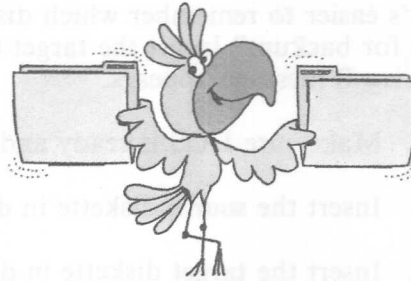
The drive in-use lights come on alternately as the file is copied. When the copy is complete, this message is displayed:

```
1 File(s) copied
A>_
```

6. Remove the diskettes from the drives. Label and date the copy using a felt-tip pen.

## Comparing a File

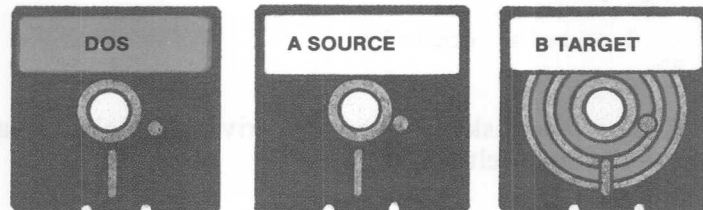
Use the **COMP** command to compare two files to see if they are identical. Usually you would use the **COMP** command after you use the **COPY** command to make sure the copy is identical to the original.



### What's Needed?

You need:

- The **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** AND
- The diskettes that contain the files you want to compare.



## COMP Procedure for a One – Drive System

1. Insert the **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** in drive A (COMP is an external command).

2. Make sure DOS is ready and **A >** is displayed.

3. Type:

comp

4. Press **Enter**.

This message is displayed:

Enter primary file name

5. Remove the **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** from drive A.

6. Insert the **source** diskette in drive A.

7. Type:

a:filename.ext

Substitute your filename for *filename.ext*.

8. Press **Enter**.

This message is displayed:

Enter 2nd file name or drive id

9. Type:

b:filename.ext

Substitute your filename for *filename.ext*.

10. Press **Enter**.

This message is displayed:

```
Insert diskette for drive B: and strike  
any key when ready
```

11. Remove the **source** diskette from drive A.

12. Insert the **target** diskette in drive A.

13. Press **Enter**.

**Note:** Depending on the amount of memory in your computer, you may have to switch the diskettes. You will be prompted for which diskette to insert (source or target). Keep switching diskettes until this message is displayed:

```
Files compare ok
```

```
Compare more files (Y/N)?
```

14. Type:

- **N** to end the COMP command. Now the DOS prompt **A >** is displayed, and the source file has been compared to the target file.
- **Y** to compare more files. Repeat the COMP procedure starting with step 6.

**Note:** If you get the message:

```
Insert disk with \COMMAND.COM in drive A:  
and strike any key when ready
```

before the DOS prompt **A >** is displayed, insert the **DOS Start-Up Diskette OR the DOS Start-Up/Operating Diskette** in drive A, and press any key. The DOS prompt is displayed.

## COMP Procedure for a Two – Drive System

1. Insert the **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** in drive A (COMP is an external command).
2. Make sure DOS is ready and **A >** is displayed.
3. Type:

`comp`

4. Press **Enter**.

This message is displayed:

Enter primary file name

5. Remove the **DOS Operating Diskette** OR the **DOS Start-Up/Operating Diskette** from drive A.
6. Insert the **source** diskette in drive A.
7. Insert the **target** diskette in drive B.
8. Type:

*filename.ext*

Substitute your filename for *filename.ext*.

9. Press **Enter**.

This message is displayed:

Enter 2nd file name or drive id

10. Type:

*filename.ext*

Substitute your filename for *filename.ext*.

11. Press **Enter**.

The drive in-use lights come on alternately. When the compare is complete, this message is displayed:

Files compare ok

Compare more files (Y/N)?

12. Type:

- **N** to end the COMP command. Now the DOS prompt **A >** is displayed, and the source file has been compared to the target file.
- **Y** to compare more files. Repeat the COMP procedure starting with step 6.

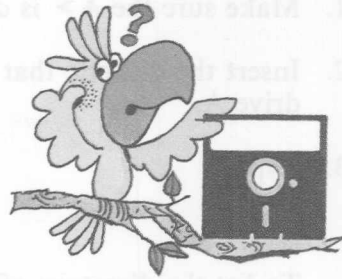
**Note:** If you get the message:

Insert disk with \COMMAND.COM in drive A:  
and strike any key when ready

before the DOS prompt **A >** is displayed, insert the **DOS Start-Up Diskette OR the DOS Start-Up/Operating Diskette** in drive A, and press any key. Then the DOS prompt will be displayed.

# Finding Out What Is on a Diskette

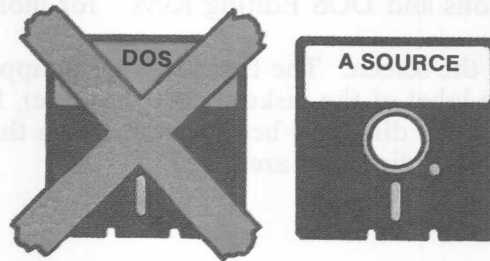
Use the DIR command to find out what files are on a diskette—perhaps because you need to find out how a particular filename is spelled, or because you cannot recall what's on a seldom-used diskette.



## What's Needed?

You need the diskette whose file directory you want to see.

**Note:** If the **DOS Start-Up Diskette** or the **DOS Start-Up/Operating Diskette** has already been loaded, you do not need it again for this procedure because DIR is an internal command.



## DIR Procedure

1. Make sure the **A>** is displayed.
2. Insert the diskette that has the directory you want to list in drive A.
3. Type:  
`dir a:`  
  
To list the directory of drive B, type:  
`dir b:`  
  
To list the directory of drive C, type:  
`dir c:`
4. Press **Enter**.  
  
**Remember:** If the screen is moving too fast for you to read, you can use the **Pause Screen** function to stop the screen. You can also use the **Printer Echo** function to print what appears on the screen. Refer to Chapter 2, "DOS Functions and DOS Editing Keys," for more information.
5. Watch the screen. The first message to appear shows the volume label of the diskette (if it has one), followed by the name of the directory being listed. Then the names of the files in that directory are listed.



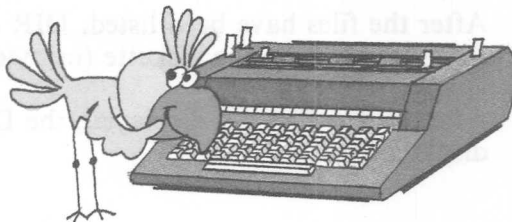
The screen displays the *filename*, the *extension*, the *size* of the file (in bytes), and the date and time that information was last written in the file. One line is displayed for each file on the diskette.

After the files have been listed, DIR displays the amount of free space left on the diskette (in bytes).

After all the files are displayed, the DOS prompt **A >** is displayed.

## Displaying What Is in a File

The **TYPE** command lets you “look into” a file; that is, it displays the contents of a file on the screen.



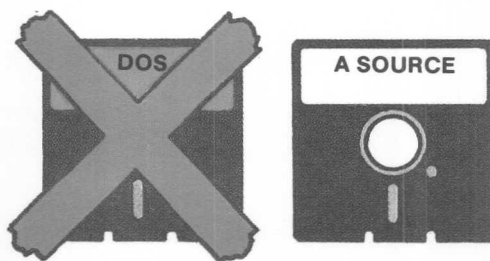
Text files are displayed in a legible format. Non-text files, such as object program files, may not be displayed, because characters that are neither alphabetic nor numeric are present.

### What's Needed?

You need:

- The diskette that has the file you want to display.
- The exact name of the file you want to type (use **DIR** again).

**Note:** If the **DOS Start-Up Diskette** or the **DOS Start-Up/Operating Diskette** has already been loaded, you do not need it again for this procedure because **TYPE** is an internal command.



## TYPE Procedure

1. Make sure DOS is ready and **A >** is displayed.
2. Insert the diskette that has the file you want to type in drive A.
3. Type:

type a:filename.ext

Substitute the name of your file for *filename.ext*.

To type a file in drive B, type:

type b:filename.ext

To type a file in drive C, type:

type c:filename.ext

4. Press **Enter**.

The contents of the file you specified are displayed on the screen.

**Remember:** If the screen is moving too fast for you to read, you can use the **Pause Screen** function to stop the screen. You can also use the **Printer Echo** function to print what appears on the screen. Refer to Chapter 2, "DOS Functions and DOS Editing Keys," for more information.

5. After the file's contents are displayed, the DOS prompt **A >** is displayed.

## Changing the Name of a File

The RENAME command lets you change a file's name—either its filename, its extension, or both.



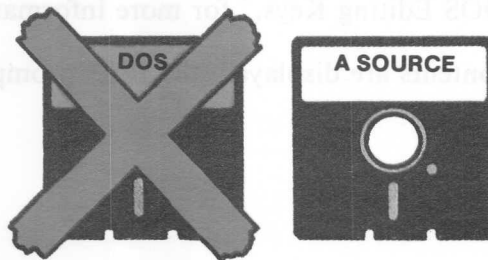
The RENAME command is useful if you want to refer to a file by a different name.

### What's Needed?

You need:

- The diskette with the file that you want to rename.
- The exact filename and extension, if it has one. (Remember, you can use the DIR command to find out the filename and extension.)

**Note:** If the **DOS Start-Up Diskette** or the **DOS Start-Up/Operating Diskette** has already been loaded, you do not need it again for this procedure because RENAME is an internal command.



## RENAME Procedure

1. Make sure DOS is ready and A > is displayed.
2. Insert the diskette that contains the file you want to rename in drive A.

3. Type:

```
rename a:filename.ext filename.ext
```

Substitute the name of the file you want to rename for the first *filename.ext* and the new name for the second *filename.ext*. Check your typing.

To rename a file in drive B, type:

```
rename b:filename.ext filename.ext
```

To rename a file in drive C, type:

```
rename c:filename.ext filename.ext
```

4. Press **Enter**.

After the file is renamed, the DOS prompt A > is displayed.



## Removing a File from a Diskette

Use the ERASE command to remove files from diskettes that you no longer need.

Removing old files makes room for new information on a diskette.



It can eliminate a potential source of confusion, too— you are less likely to use an old version of a program or an old data file for processing.

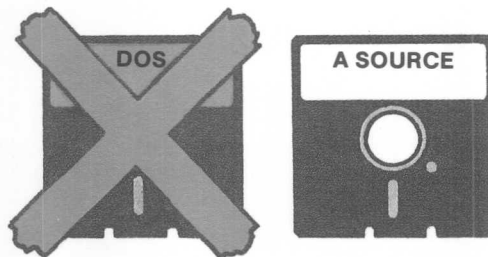
**Important:** *Plan ahead and check your typing* when you use ERASE. Once a file has been erased, you cannot get it back.

### What's Needed?

You need:

- The diskette with the file that you want to erase.
- The exact filename and extension of that file (use DIR if you need to).

**Note:** If the **DOS Start-Up Diskette** or the **DOS Start-Up/Operating Diskette** has already been loaded, you do not need it again for this procedure because ERASE is an internal command.



## ERASE Procedure

1. Make sure DOS is ready with **A >** displayed.
2. Insert the diskette that contains the file you want to erase in drive A.

3. Type:

`erase filename.ext`

Substitute the name of the file you want to erase for *filename.ext*. Then check your typing.

To erase a file in drive B, type:

`erase b:filename.ext`

To erase a file in drive C, type:

`erase c:filename.ext`

4. Press **Enter**.

After the file is erased, the prompt **A >** is displayed.

## Helpful Hints

We are ending this chapter with a few hints—they may save you some time or help you as you use your IBM Personal Computer.

- Make copies of your diskettes regularly.
- To make sure that a command works, you should:
  - Check your typing.
  - Have the correct diskette in the drive.
  - Check the directory of the diskette with the **DIR** command.
  - Specify the correct diskette drive. If it is being assumed, be sure it is the correct one.
  - Include the colon.
  - Spell the filename correctly.
  - Use the extension. (In the case of **BASIC** program files, for example, it is easy to forget the **.BAS** that **BASIC** uses for an extension.)
- Refer to the *DOS Reference* for additional information if a command still doesn't work.
- Print a directory frequently (if you have a printer) and store the listing with the diskette. Refer to the **Print Screen** function in the *Guide to Operations* for your computer.
- All commands (except **DISKCOPY** and **DISKCOMP**) that use files will work on both diskettes and fixed disks.



- The date and time shown with each directory entry are the date and time of the last addition or change to that file. The date and time are not changed during a COPY or a DISKCOPY.

At first glance, copying all files on a diskette may appear to have the same purpose as DISKCOPY. It does, but only when copying to a diskette with no files on it.

With COPY, if files already exist on the target diskette, they will either be replaced (if files being copied have the same name) or left alone. This is because COPY goes through the original diskette, copying each file, one at a time. COPY does not disturb old files on the target diskette as long as their names aren't the same as files being copied.

DISKCOPY, however, makes an exact copy of the original diskette, wiping out all old files on the target diskette during the copying process.

• The date and time shown with each directory entry are the date and time of the last addition or change to that file. The date and time are not changed during a COPY or a DISKCOPY.

At first glance, copying all files on a diskette may appear to have the same purpose as DISKCOPY. It does, but only when copying to a diskette with no files on it.

With COPY, if files already exist on the target diskette, they will either be replaced or files being copied have the same name(s) or left alone. This is because COPY goes through the original diskette, copying each file one at a time. COPY does not disturb any files on the target diskette as long as their names aren't the same as files being copied.

DISKCOPY, however, makes an exact copy of the original diskette, wiping out all the files on the target diskette during the copying process.

## **Chapter 6. Organizing Files on Your Fixed Disk**

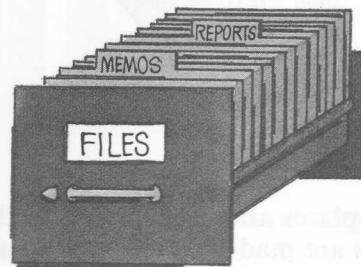
Your Fixed Disk—an Electronic Filing Cabinet .....	6-3
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Copying Application Programs to Your Subdirectories .....	6-7
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## Chapter 6. Organizing Files on Your Fixed Disk

6-1	Your Fixed Disk—An Electronic Filing Cabinet
6-2	Making Subdirectories
6-3	Copying Application Programs to Your Subdirectory
6-4	Copying a Single File to a Subdirectory
6-5	Erasing a File from a Subdirectory
6-6	Moving In and Out of Your Subdirectories
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6-9	Displaying the Contents of a Subdirectory
6-10	Displaying All Files in a Subdirectory
6-11	Displaying One File in a Subdirectory
6-12	Removing a Subdirectory
6-13	Displaying the Subdirectory Names on Your Fixed Disk

## Your Fixed Disk—an Electronic Filing Cabinet

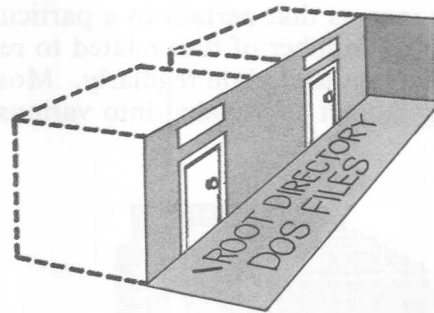
When we described files earlier in this book, we compared them to files in a filing cabinet. Each file folder in a filing cabinet contains information on a specific subject. Several of your files may be memos that pertain to a particular project. You may also have a number of files related to reports that your employer asks you to update regularly. Most likely, the files in your filing cabinet are divided into various categories or groups.



In the same way that you group files together in a filing cabinet, you can group files on your fixed disk. The groups are called *subdirectories*. Sometimes they are simply called *directories*.

When you prepared your fixed disk and installed DOS in Chapter 4, you copied DOS files from your DOS diskettes to your fixed disk. Those DOS files were copied to the *root directory*—the directory that you're in when DOS starts.

The root directory can be thought of as a long hallway with rooms opening off from it. The root directory is represented by a backslash (\). Each room along the hallway represents a subdirectory containing groups of related files.



You see that the nameplates above the doors to the rooms are blank. And the rooms are made with dotted lines. That's to show that you haven't created any subdirectories yet. So far you have only the root directory on your fixed disk.

Now you'll learn how to create subdirectories for storing files and application programs.

## Making Subdirectories

Let's assume that you have the two general groups of files that we talked about—memos and reports. You want to make two subdirectories branching off the root directory—one named MEMOS and one named REPORTS. MEMOS will contain the memos that you create with a word processing application. REPORTS will contain all your report files and your reporting application.

**Note:** We're using MEMOS and REPORTS as examples. You can call your subdirectories by any names, as long as they conform to the rules for filenames as described in Chapter 3.

To create MEMOS:

1. Start DOS from your fixed disk.
2. Using the DOS command MKDIR (MD for short) make a subdirectory called MEMOS. Type:

```
md \memos
```

3. Press **Enter**.

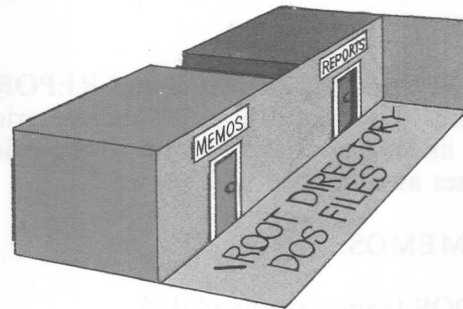
When the DOS prompt reappears, MEMOS has been created on your fixed disk.

4. Use the same command to make a subdirectory named **REPORTS**. Type:

```
md \reports
```

5. Press **Enter**.

When the DOS prompt reappears, **REPORTS** has been created.



You now have two subdirectories (that look like rooms in the drawing) opening directly off the root directory. The name **MEMOS** appears above the first room. The name **REPORTS** appears above the second room. Remember, **DOS** is in the root directory (the hallway).

You can make as many subdirectories as you want— the number is limited only by the amount of space on your fixed disk.

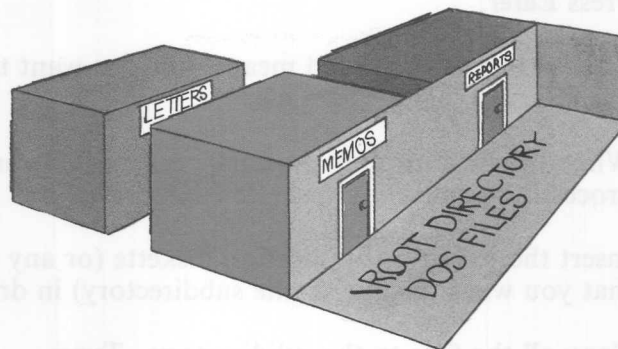
It is possible to have subdirectories one “behind” the other. For example, you could make a subdirectory called **LETTERS** behind **MEMOS**. The command for making this subdirectory is:

```
md \memos\letters
```

6. Press **Enter**.



If you were to make the LETTERS subdirectory, a picture representing your fixed disk would look like this:



You will probably not need to make subdirectories like the ones shown in this picture. But if you are interested in learning more about this concept, see “Using Tree-Structured Directories” in Chapter 5 of the *DOS Reference*.

## Copying Application Programs to Your Subdirectories

You probably want to store your word processing application in the MEMOS subdirectory. To copy the application to the subdirectory:

**Note:** If you don't have a word processing or reporting application, use any application that you want to copy to your subdirectory.

1. Put the word processing application diskette in drive A.

3. Copy *all* the files from the diskette to the subdirectory on the hard disk. Press **Enter**.

The \*.\* in this command means that you want to copy all the files, not just a single file.

4. When the DOS prompt appears, remove the word processing application diskette from drive A.
5. Insert the reporting application diskette (or any application that you want to copy to the subdirectory) in drive A.
6. Copy all the files to the subdirectory. Type:

```
copy a:*. * c:\reports
```

7. Press **Enter**.

Now each of your two subdirectories contains an application program. You can store the files that you create with your applications in the same subdirectory as the application program itself.

## Copying a Single File to a Subdirectory

Suppose that you have just one file that needs to be copied to a subdirectory from your diskette. Use the same procedure described in the previous section, but in place of \*.\* , type the name of the file.

1. For example, to copy a file named NEWFILE to the REPORTS subdirectory, type:

```
copy a:newfile c:\reports
```

2. Press **Enter**.

You have just copied NEWFILE from the diskette in drive A to REPORTS on drive C.

## Erasing a File from a Subdirectory

Sometimes you want to erase files that are no longer needed. Let's say you want to erase NEWFILE from the REPORTS subdirectory.

1. Type:

```
erase c: \reports\newfile
```

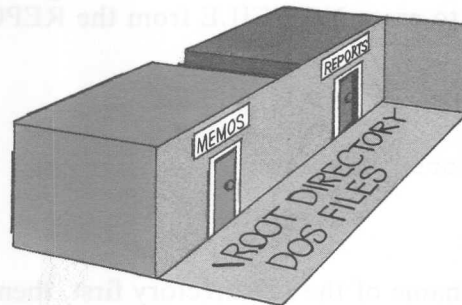
2. Press **Enter**.

You must type the name of the subdirectory first, then a backslash, then the complete name of the file.

## Moving In and Out of Your Subdirectories

As already mentioned, when you start DOS, you're at the root directory. In other words, the root directory is the *current directory*.

The current directory is the one you are presently working in, or the one you *were* working in on a different drive. DOS remembers the directory you were working in even if you're not presently accessing that drive.



Even though you made two subdirectories, you have not changed the current directory yet. The doors on MEMOS and REPORTS are closed, indicating that your current directory is still the root directory.

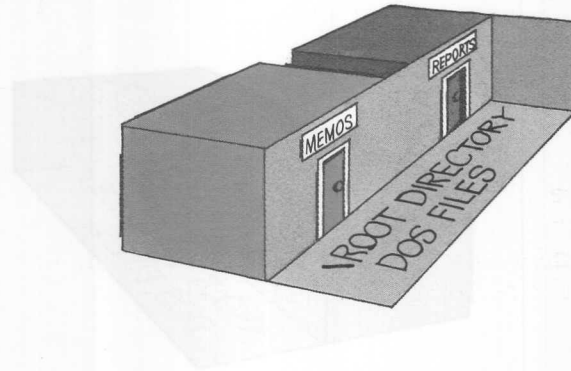
But now you need to know how to move in and out of subdirectories on your fixed disk to locate files and run applications. You'll use the change directory command (CHDIR) to change the current directory to one you want to work in.

Suppose you want to look at the files in **REPORTS**. To make **REPORTS** the current directory:

1. Use the **CHDIR** command (**CD** for short). Type:

```
cd \reports
```

2. Press **Enter**.



The door is open on **REPORTS** now, indicating that the current directory is **REPORTS**.

3. To see the files that you have in **REPORTS**, type:

```
dir
```

4. Press **Enter**.

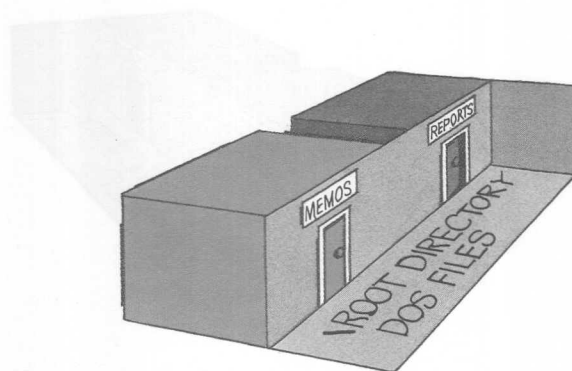
A list of files appears on your screen.

5. To change the directory to MEMOS (make MEMOS the current directory), type:

```
cd \memos
```

6. Press **Enter**.

Now the door is open on MEMOS, indicating that MEMOS is the current directory.



## Displaying the Current Directory

If you're not sure which subdirectory you are in, you can display the directory name. Do not use a backslash with this command. Type:

```
cd
```

Press **Enter**.

You should be in MEMOS currently, so the following appears on your screen:

```
C:\MEMOS
```

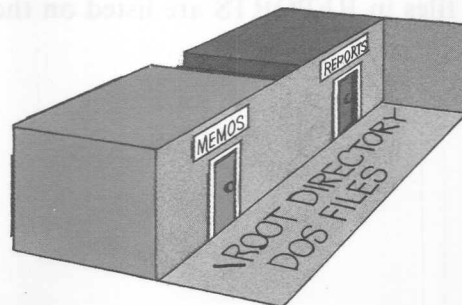
## Returning to the Root Directory

To return to the root directory from any subdirectory, type:

```
cd \
```

Press **Enter**.

Now the root directory is current, so the doors on both subdirectories are closed.



## Displaying the Contents of a Subdirectory

### Displaying All Files in a Subdirectory

To display the entire contents of a subdirectory, use one of the following two methods:

- Use the CD (Change Directory) command followed by the DIR command.
- Tell DOS how to locate and display the files you want.

Here's an example of the first method. If the current directory is the root directory, and you want to display the files in REPORTS, first:

1. Change directory to REPORTS. Type:

```
cd \reports
```

2. Press **Enter**.

3. Use the DIR command to list the files on the screen. Type:

```
dir
```

4. Press **Enter**.

All the files in REPORTS are listed on the screen.



Using the second method, you can display all files in REPORTS while in the root directory, *without changing* to the REPORTS subdirectory.

1. First change to the root directory by typing:

```
cd \
```

2. Press **Enter**.

3. Now enter the DIR command and the subdirectory name.

```
dir \reports
```

4. Press **Enter**.

The REPORTS files appear on the screen (and you didn't have to leave the root directory to display them).

## Displaying One File in a Subdirectory

To display only one file in a subdirectory, if you know the name of the file you're looking for, use the DIR command. DOS must know the subdirectory where the file is located as well as the name of the file. Suppose the name of the file is MYFILE and it is in REPORTS. To display the name of the file, type:

```
dir \reports\myfile
```

Press **Enter**.

**Note:** If you don't have MYFILE (and you probably don't), try the previous command with a file that you *do* have.

## Removing a Subdirectory



Use the RMDIR command to remove a subdirectory. Before removing a subdirectory, keep the following in mind:

- A subdirectory can be removed only if it is empty. That is, it contains only the special entries (.) and (..). When you display the contents of a subdirectory, using the DIR command, you see those two special entries listed.
- Only one subdirectory can be removed at a time.
- The root directory and the current directory cannot be removed.

Let's assume you want to remove the **REPORTS** subdirectory from your fixed disk. Follow these steps:

1. Change directory to **REPORTS**. Type:

```
cd \reports
```

2. Press **Enter**.
3. Erase all the files in **REPORTS**.

**Important:** Do not type this command unless you are sure you're in the subdirectory in which you want to erase files. You may erase the wrong files unintentionally.

Type:

```
erase *.*
```

4. Press **Enter**.
5. Answer **Y** to the question, "Are you sure (Y/N)?" and press **Enter**.
6. Change to the root directory. (You cannot remove a directory while you're working in that directory.) Type:

```
cd \
```

7. Press **Enter**.
8. To remove the **REPORTS** subdirectory, use the **RMDIR (RD)** command. Type:

```
rd \reports
```

9. Press **Enter**.

The DOS prompt appears and **REPORTS** is removed from your fixed disk.

If you try to change directory to **REPORTS**, you get the message:

```
Invalid directory
```

## Displaying the Subdirectory Names on Your Fixed Disk

You can display the names of all your subdirectories using the TREE command. You can also see all the filenames in each subdirectory, if you use the /f option.



```
tree /f
```

Press **Enter**.

To see just the subdirectory names without the filenames, type:

```
tree
```

Press **Enter**.

For more information, see the TREE command in Chapter 7 of *DOS Reference*.

## Appendices

NOTES

# NOTES

Appendices

## Appendix A. Messages



This appendix contains two parts: *device errors* (the message that DOS uses to indicate errors while reading or writing to devices on your computer) and *common error messages* in alphabetic order. Each message is shown in **bold** type, and the description follows the message.

The first word of the description of each message is the name of the program or command that generated the message.

### Device Error Messages

When an error is detected while reading or writing any of the devices (such as disk drives and printer) on your system, DOS displays a message in the following format:

< *type* > error reading < *device* >  
Abort, Retry, Ignore, Fail?

or

< *type* > error writing < *device* >  
Abort, Retry, Ignore, Fail?

\* **WARNING:** If either of these messages appears for a diskette drive, DO NOT change diskettes before responding with A, R, I or F.

## Responses

The computer now waits for you to respond. If you know what caused the problem, you can take corrective action before you actually choose a response. The computer waits until *one* of the following responses is made. Enter:

- **R** for Retry. The system tries the read or write operation again.
- **A** for Abort. The system ends the program that requested the read or write operation and returns to DOS.
- **F** for Fail. The system ends the current operation, returns an error to the program, and continues to run the program.

**Note:** Choosing this response *may* result in lost data.

- **I** for Ignore. The system ignores only the error it encountered and continues to run the remainder of the program.

**Note:** Choosing this response *may* result in lost data.

**Important:** To recover from an error condition, the responses are *generally* made in the above order.



In these messages, *<device>* is the name of the device in error, such as **PRN**, or **B:**, and *<type>* is one of the following error types:

### **Data**

**Explanation:** The computer (or DOS) was not able to read or write the data correctly.

**Action:** Try to correct the error by choosing **Retry** several times. Choose **Abort** if you want to end the program. This message usually means a diskette has developed a defective spot.

Refer to “Responses” in this Appendix.

### **General Failure**

**Explanation:** An error of a type not described elsewhere in this list has occurred.

**Action:** Choose **Retry** or **Abort**. This problem requires further investigation by a programmer.

If this is a purchased program, contact the dealer you purchased it from. Refer to “Responses” in this Appendix.

### **No paper**

**Explanation:** The indicated printer is either out of paper or is not switched on.

**Action:** Switch on the printer, press the **ONLINE** switch, or add paper and retry. Refer to “Responses” in this Appendix.

### **Non-DOS disk**

**Explanation:** The file allocation table contains invalid information.

**Action:** The diskette needs to be reformatted, but try running CHKDSK to see if any corrective action is possible. Copy files to another diskette before reformatting. Files are lost forever once you reformat the diskette. For more information about CHKDSK refer to the *DOS Reference*. Also, refer to “Responses” in this Appendix.

### **Not ready**

**Explanation:** The named device is not ready, and cannot accept or transmit data.

**Action:** Check that the diskette drive door is closed and choose **Retry** for your response if this is the problem. Refer to “Responses” in this Appendix.

### **Read fault**

**Explanation:** DOS was unable to successfully read the data from the device.

**Action:** Make sure the diskette has been properly inserted in the drive. Then choose **Retry**. Refer to “Responses” in this Appendix.

### **Sector not found**

**Explanation:** The sector containing the data could not be located on the diskette.

**Action:** This problem usually occurs when a defective spot develops on the diskette. The diskette needs to be reformatted (copy all files from it first). Refer to “Responses” in this Appendix.

## **Seek**

**Explanation:** The fixed disk or diskette drive was unable to locate the proper track on the disk.

**Action:** Make sure the diskette has been properly inserted in the drive. Try a different drive. Refer to "Responses" in this Appendix.

## **Write fault**

**Explanation:** DOS was unable to successfully write the data to the device.

**Action:** Make sure the diskette has been properly inserted in the drive. If that is not the problem, choose **Retry**. If you get the same message, choose **Abort** and retry the command with a new diskette. Refer to "Responses" in this Appendix.

## **Write protect**

**Explanation:** An attempt was made to write on a write-protected diskette.

**Action:** Investigate carefully whether you want to write on a write-protected diskette. If you do, remove the write-protect tab.

**Note:** This message will appear if you attempt to use a double-sided diskette in a single-sided drive.

# Common Error Messages

This section contains an alphabetic list of some of the more common DOS messages you may get on your screen. (The remainder of the DOS messages are in the *DOS Reference*). Each message is indicated here by **bold** type.

## **Attempted write-protect violation**

**Explanation:** FORMAT. The diskette being formatted cannot be written on because it is write protected.

**Action:** You are prompted to insert a new diskette and press any key to restart formatting.

## **Bad command or filename**

**Explanation:** DOS. The command just entered is not a valid command to DOS.

**Action:** You should check your spelling and reenter the command. If the command name is correct, check to see that the default or specified drive contains the external command or batch file you are trying to run.

## **Compare error(s) on drive x, track xx, side xx**

**Explanation:** DISKCOMP. One or more locations on the indicated track and side contain differing information between the diskettes being compared.

**Action:** This message informs you that there is a difference between diskettes. If you want an exact copy of a diskette, use DISKCOPY.

### **Cannot DISKCOMP to or from a network drive**

**Explanation:** DISKCOMP. You cannot use the DISKCOMP command to compare files that are on a network drive or on a drive that is on your computer but is currently being shared on the network.

**Action:** Use the COMP command instead of DISKCOMP.

### **Cannot DISKCOPY to or from a network drive**

**Explanation:** DISKCOPY. You cannot use the DISKCOPY command to copy files to or from a network drive or on a drive that is on your computer but is currently being shared on the network.

**Action:** Use the COPY \*.\* command instead of DISKCOPY. You can also use the COPY command to copy individual files instead of the whole diskette.

### **Cannot FORMAT a network drive**

**Explanation:** FORMAT. You can't use the FORMAT command to format a drive or a drive that is on your computer but is currently being shared on the network.

**Action:** No action is required.

### **Drive types or diskette types not compatible**

**Explanation:** DISKCOMP or DISKCOPY. The source and target diskettes or drives are not compatible. DISKCOMP and DISKCOPY can be used only with certain combinations of diskettes and diskette drives.

**Action:** Refer to "DISKCOMP Compatibility" or "DISKCOPY Compatibility" in Chapter 7 of the *DOS Reference* for the allowable combinations.

### **Duplicate filename or file not found**

**Explanation:** RENAME. You tried to rename a file to a filename that already exists on the diskette, or the file to be renamed could not be found on the specified (or default) drive. RENAME is warning you that you are using the same name for two files, or else it cannot find the file you are trying to rename.

**Action:** Did you type the filename and drive correctly? Take a second look at the filename you want to change, and reenter the command.

### **File cannot be copied onto itself**

**Explanation:** COPY. You tried to copy a file and place the copy (with the same name as the original) in the same directory and on the same disk as the original file.

**Action:** Change the name given to the copy, or put it in a different directory, or put it on another diskette.

### **File creation error**

**Explanation:** DOS and commands. An unsuccessful attempt was made to add a new filename to the directory or to replace a file that was already there.

**Action:** If the file was already there, it is possible that the file is marked "read only" and cannot be replaced. Otherwise, run CHKDSK to determine if the directory is full or if some other condition caused the error.

### **File not found**

**Explanation:** DOS and commands. A file named in a command or command parameter does not exist on the diskette in the specified (or default) drive.

**Action:** Retry the command using the correct filename and drive.

### **Format failure**

**Explanation:** FORMAT. A disk error was encountered while formatting the target diskette.

**Action:** The diskette is unusable. Retry the command using another diskette.

### **Insert disk with \COMMAND.COM in drive A: and strike any key when ready**

**Explanation:** DOS. DOS is attempting to reload the command processor, but COMMAND.COM is not in the drive that DOS was started from.

**Action:** Insert the **DOS Start-Up Diskette** or the **DOS Start-Up/Operating Diskette** in the indicated drive and press any key.

### **Invalid COMMAND.COM in drive x**

**Explanation:** DOS. While trying to reload the command processor, the copy of COMMAND.COM on the diskette was found to be an incorrect version.

**Action:** You need to insert the **DOS Start-Up Diskette** or the **DOS Start-Up/Operating Diskette** in drive x.

## Invalid drive specification

**Explanation:** FORMAT. The diskette type and drive type are incompatible. You tried to format a double-sided diskette in a high-capacity drive, or a high-capacity diskette in a double-sided drive.

**Action:** Use a high-capacity diskette in the high-capacity drive *or* format the diskette using the /4 parameter.

**Note:** When performing the SELECT procedure with a high-capacity drive, you *must* use a high-capacity diskette.

## Invalid media or track 0 bad - disk unusable

**Explanation:** FORMAT. FORMAT was unable to format track 0 on the specified media. This error occurs if:

- Track 0 is unusable. Track 0 is where the boot record, file allocation table, and directory must reside. If track 0 is bad, the disk is unusable.
- The diskette type and drive type are incompatible. You tried to format a double-sided diskette in a high capacity drive, or a high-capacity diskette in a double-sided drive.

**Action:** For the first case, obtain another diskette and retry the FORMAT command. For the second case, retry the FORMAT command specifying the /4 parameter.



### **Invalid number of parameters**

**Explanation:** Commands. You have specified too few or too many parameters for the command you entered.

**Action:** Correct the command you entered and try again.

### **Non-System disk or disk error**

#### **Replace and strike any key when ready**

**Explanation:** Startup. There is no entry for IBMBIO.COM or IBMDOS.COM in the directory or a disk read error occurred while starting up the system.

**Action:** Insert the **DOS Start-Up Diskette** or the **DOS Start-Up/Operating Diskette** in drive A and restart your system.

### **Target diskette may be unusable**

**Explanation:** DISKCOPY. This message follows an unrecoverable read, write, or verify error message. The copy on the target diskette may be incomplete because of the unrecoverable I/O error.

#### **Action:**

- If the error is on the target diskette, use a new diskette.
- If the error is on the source diskette, copy all the files from the source diskette to another diskette. Then reformat the source diskette.

Invalid number of parameters

**Explanation:** Command: You have specified too few or too many parameters for the command you entered.

**Action:** Correct the command you entered and try again.

Non-system disk or disk error  
Replace and strike key when ready

**Explanation:** Startup: There is no entry for IBMBIOS.COM or IBMDDSK.COM in the directory or a disk read error occurred while setting up the system.

**Action:** Insert the DOS Startup Diskette or the DOS Start-Up/Operating Diskette in drive A and restart your system.

Target diskette may be missing

**Explanation:** DISKCOPY: The message follows an unrecoverable read, with no retry error message. The copy on the target diskette may be incomplete because of the unrecoverable I/O error.

**Action:**

- If the error is on the target diskette, use a new diskette.
- If the error is on the source diskette, copy all the files from the source diskette to another diskette. Then reformat the source diskette.

## Appendix B. Special Keyboard Considerations

If you experience difficulty in entering certain characters (the characters you type are not the ones that appear on the screen) when you use the SELECT procedure in Chapter 4, it may be due to the fact that your keyboard layout does not match the DOS that you are using.

**Note:** Once you have completed SELECT, you will have loaded the appropriate keyboard routine, and will no longer experience difficulty.

The characters that you may have a problem with include:

- The colon (:)
- The backslash (\)
- The letter Y

There is an alternate method to type each of these characters.

### To get a colon:

Press and hold the Alt key, and press 5 and then 8 on the numeric keypad. Release the Alt key.

### **To get a backslash:**

Press and hold the Alt key, and press 9 and then 2 on the numeric keypad. Release the Alt key.

### **To get the letter Y:**

Press and hold the Alt key, and press 8 and then 9 on the numeric keypad. Release the Alt key.

During the SELECT procedure for a fixed disk, you are asked to enter a volume label for your fixed disk. Due to the reason mentioned above, the characters you type may not be the ones you expected. Do not enter a volume label during the SELECT procedure. Just press **Enter**.

After completing SELECT, you can give your fixed disk a volume label using the LABEL command as described in Chapter 7 of the *DOS Reference*. We strongly recommend giving a fixed disk a volume label.

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